

Spring 2020

Hinkley Connection Project

Project update

An exceptional three months



James Goode
Project director

It has been an exceptional three months since our last update.

After one of the wettest autumns I can remember, the rain finally stopped and we made great progress in all areas of construction.

Then came the Coronavirus outbreak and the implementation of a UK-wide lockdown, which has affected every area of our lives.

Our immediate response was to postpone all face to face public meetings and, working closely with our contractors, to undertake detailed reviews all of our time-critical construction activity and carry out robust risk assessments to identify where we can safely continue at key sites.

The Hinkley Connection Project is a key part of the national energy infrastructure. These are works that need to continue to ensure the future running of the network.

Work across the project has been significantly reduced and we have introduced stringent site operating procedures to protect not just our workforce but also their colleagues, their families and the local communities we are working in.

We are very grateful to our people who are continuing to go out to work every day, and to the local communities for their support at such a critical time for our country.

We are keeping the situation under constant review. We're in regular contact with government to ensure the decisions we're making are in the best interests of our people and the country as a whole.



nationalgrid

Hinkley Connection Project

Answering your questions

Are you still working?

The Hinkley Connection Project is a key part of the national infrastructure. These are works that need to take place today to ensure the future running of the network. Together with our contractors, we are continuing to progress with the critical elements of the project in line with current government guidance on construction activity.



Our contractors have reduced the number of staff on site and introduced social distancing measures

What steps have you taken in response to COVID-19?

Work on the project has been significantly reduced and we are focussing on critical activities. To protect staff and the community, we have introduced stringent site operating procedures these include:

- strict social distancing measures
- restricted travel between our sites
- removing skin contact entry systems, such as fingerprint scanners
- installing additional handwashing facilities and welfare cabins
- enhanced cleaning of all site buildings, handrails, door handles, welfare facilities, toilets, etc.
- increased information and toolbox talks to remind people to follow the rules.

How are you making decisions?

We are continuing to follow government and Public Health England advice and continually working with our contractors to review the situation and protect our remaining workforce and the community.

Keeping the lights on during COVID-19

As an owner and operator of critical national infrastructure, we at National Grid know that millions of people are relying on us, now more than ever, to keep the lights on and the gas flowing. We are working hard to ensure energy can be supplied safely and efficiently to hospitals, schools, businesses and homes across the country.

That's why, in the current environment, many roles across our business have been designated as 'key worker' roles by the Government. When you flick on the lights later, turn on the TV, or prepare dinner, it's the jobs that our people are carrying out today and every day that make that happen.

We have hundreds of people working on sites across the country in a huge variety of roles that just can't be done at home. Whether it's construction work, maintenance, repairs or operating our control centres, it's important that our work continues where it's safe and appropriate to do so.

At a time when everyone is being asked to stay at home wherever possible, we understand it can be unnerving to see others going about their daily work. Our people who need to continue working on site and in the community are doing so under stringent health and safety measures to protect not just themselves, but also the communities in which they operate, and these measures will be regularly reviewed.



We continue to liaise closely with government to ensure we're following the most updated guidance and that the decisions we're making are in the best interests of our people and communities throughout this period.

You can read more about what we're doing at National Grid [here](#) and about the role of the energy industry during the current crisis from [Ofgem](#) and from the [Energy Networks Association](#).

Staying in touch

Although we have had to postpone all public meetings and briefings, we remain committed to open and transparent communications with all our stakeholders.

The project website is kept up to date and is the 'go to' place for current construction activities. We've created a new **community portal** to provide information that we would have presented at public events and have increased our mailings to ensure people know when and where work is continuing or starting and where they can go for more information.

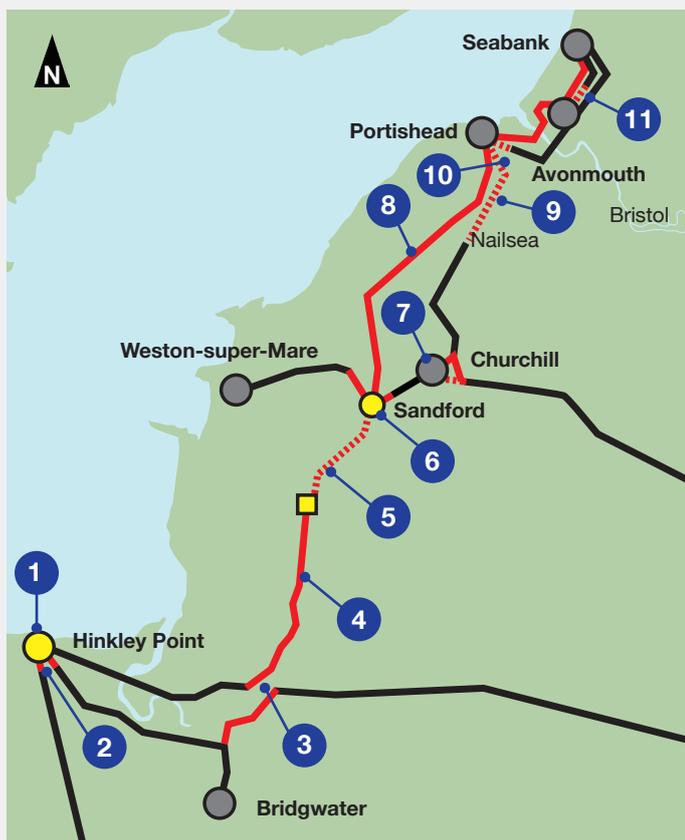
We are also offering parish councils virtual meetings where we would have provided a face to face briefing. Meetings and information events will be rearranged when the risk of COVID-19 passes.

Our community relations team remains available 24 hours a day on our helpline (**0800 377 7347**) to answer any questions.



Around the region

The Hinkley Connection Project is made up of several stages of work. More information on all the stages, construction timings and how they fit together can be found on our project website: www.hinkleyconnection.co.uk.



1 Shurton substation

Linxon, our contractor, is making good progress with the new substation to connect EDF Energy's new power station to the grid.

Completing the substation on time will be critical to allow EDF Energy to start testing their systems before the nuclear reactor goes live.

2 Modifying existing overhead lines in the Hinkley Point area and 3 Bridgwater area

We're carrying out some more ecology surveys near existing pylons and where we will need to build new ones.

We're looking for bats and other protected species and our findings will help us plan how we can reduce any impact to wildlife when we start work.

4 Clearing vegetation and erecting fencing along route of T-pylons

Our contractor, Balfour Beatty, has been clearing vegetation and carrying out ecological mitigation work along the route to protect wildlife before work starts.

We've also carried out investigations to look for underground utility services in the roads and verges where we will build road accesses and removed vegetation from rhynes where water voles may nest.

In May 2020, we will start to build the temporary road accesses into construction areas. To keep everyone safe while we work on the highways, we need to put up temporary traffic lights, restrict parking and close some roads temporarily.

Our first activities will be in the following locations:

Road	Activity	Start date	Completion date
A38, near Ford Garage, Tarnock	Traffic lights while building road access	26 May 2020	30 June 2020
B3141 Causeway - Highbridge to Woolavington	Traffic lights at various locations along the road while building five separate road accesses	26 May 2020	28 August 2020
B3139 Mark Causeway, Highbridge	Traffic lights while we build an access on each side of the road	26 May 2020	31 July 2020

Please note these dates may change

We know this work will cause disruption to journeys and we're sorry for any inconvenience. We're working with Balfour Beatty to get this work completed as quickly as possible.

Before work starts, we will write to local residents and parish councils with more detailed information.



Our contractors are checking for buried utility pipes and cables where we will build road accesses

5 Haul road and cable trenching across the Mendips continues

We've completed the 40 metre crossing of the River Axe and work is continuing to complete the temporary haul road from the A38 near Tarnock to the A368 Towerhead Road. Our contractors, Balfour Beatty, have started excavating cable trenches and work is progressing well.

After we've finished installing cables and removing Western Power Distribution's (WPD) pylons in the area, we will remove the bridge and haul road and reinstate the land to its original condition.



This modular truss designed bridge known as a Callendar-Hamilton Bridge is the first full-sized model used in the UK for several decades.

Before any construction work can start, we have to investigate whether there's any archaeology under the ground. Our surveys have identified some very interesting archaeology finds along the underground cable route. See pages 7 and 8 for more details.

6 Sandford substation build starts

In April 2020, following robust risk assessments and the introduction of stringent measures to meet social distancing rules, we started work to build the new substation near Sandford. Siemens is our principal contractor for this stage of work.

We've already completed the entrance from the A368 and built an access road to the site; and we've carried out some advance landscaping and planting around the boundary of the site to help screen the new substation.

We're using an innovative new material called Sureground for the hard standing area and a section of the haul road. Read more on page 7 on how this will help reduce vehicle delivery numbers into the site.

The new substation will be completed by early 2024 and will deliver electricity into the local electricity network, owned by WPD. This is instead of power being brought into the area from Bridgwater through existing WPD pylons.

We will take down those pylons when the substation is operational.

We're rerouting the Strawberry Line around the substation – read more on page 9.

7 Reinforcing the electricity network at Churchill

We've completed the upgrades to WPD's substation at Churchill and the modifications to the nearby electricity network.

WPD has installed 220 metres of underground cable to connect the new electrical equipment inside the substation and replaced an existing pylon with a cable sealing end (CSE) pylon to join with the new cable.

Local contractor, Grant Construction, will remove the temporary access and haul road on the land adjacent to the substation when the risk of Coronavirus has passed.

8 Ground investigations and preparations for new overhead line from Sandford to Avonmouth

We're carrying out surveys along the route of the new overhead line between Sandford and Seabank substations. We will use T- pylons for most of the route.

The findings will help us to plan the final designs for the overhead line, the temporary road entrances and the haul roads needed to access the new pylon locations.

The surveys include:

- Ecological and topological studies which involve staff walking along the route - these have started and will continue until we start construction
- Drainage tests
- Trial boreholes to study ground conditions, using a mobile drilling rig



We use mobile drilling rigs to assess ground conditions

When we're surveying the roads our contractor, Balfour Beatty, needs to manage the traffic to keep public and our workers safe. This involves using temporary traffic lights or 'stop/go' boards. We're sorry if this causes disruption to your journey.

Other preparations over the coming months will include carrying out ecological mitigation and clearing some vegetation and hedgerows, as well as erecting stock fencing along the route of the new overhead line.

We'll start work to build the pylons between Sandford and Avonmouth in 2021 and we'll provide more information on the construction programme nearer the time.

9 Progress along the underground cable route between Nailsea and Portishead

We started work in January 2020 and we've completed building temporary entrances from Engine Lane, Hanham Way, Washing Pound Lane, Clevedon Road and Sheepway. We will use these entrances to build the haul road along the cable route.

Our contractors, J Murphy and Sons, are currently building temporary entrances on Whitehouse Lane. We're pleased we can complete this work using two-way traffic lights – without the need to close Whitehouse Lane as originally proposed.

Whitehouse Lane will be a crossing point for our construction vehicles on the haul road. The crossing will be controlled by manually operated traffic lights during working hours only.

On Monday 11 May 2020 our contractors, Murphy's, will start work to dig trenches and install cable ducts in the west end of Nailsea. They will start in Engine Lane and will continue along Blackfriars Road, Hannah More Road, Queens Road, North Street and Hanham Way.

When working on the public highways we need to manage traffic to keep residents, road users and our workers safe. On Engine Lane, we'll need to close part of the road where it meets with Blackfriars Road for approximately two weeks.

Access will be maintained throughout and diversion signs will be in place to show alternative routes. We will put out advance notice signs to let local road users know of traffic restrictions, including further road closures. Dates for work on the other roads, will be posted on our project website once confirmed.

We expect to complete ducting in this area by December 2020 and then return next year to pull the underground cables through the ducts.



When the cables are installed, we will take down pylons that run close to people's homes

We had planned to host a community drop-in event in Portishead in late March; unfortunately, we had to put this on hold due to Coronavirus. We remain committed to keeping residents and businesses informed and we've set up a [community portal](#) so that people can easily access and download documents and find links to other information that would have been available at the event.

10 Seasonal activity at Portbury Wharf Nature Reserve

To protect wildlife, we're limiting most work in the reserve each year to the six months between April and September. This avoids breeding and nesting seasons.

We've completed the temporary entrance from Sheepway into the reserve and using the access to build the haul road for the underground cable route. Between now and September, there will be trenching and ducting work and horizontal directional drilling (HDD) within the reserve as we prepare to install the cables later in the programme.

We are also preparing to start work on the new overhead lines at Portishead substation next year. As part of our ecological mitigation work to protect wildlife in the reserve, we're working with our team of experts to carry out ongoing ecological surveys and put up temporary exclusion fencing to prevent protected species from entering our construction areas.



11 Avonmouth

WPD and its contractor, Balfour Beatty, are making good progress at Avonmouth with work to modify the substation and install new underground cables.

With the underground cables in place, they are preparing to remove a section of the existing pylons. Where the overhead lines cross the M49, we will need to close the motorway during two short closures.

The work was temporarily postponed due to COVID-19 and we're working with Highways England to coordinate new dates at a time to minimise delays to journeys. We'll have more information to share on this soon.

This work will clear the way for the construction of the pylons between Sandford substation and Seabank substation.



A new cable sealing end pylon has been erected to connect the underground cables with the remaining overhead lines

Sustainable surface solutions – reducing lorry deliveries

In a first for National Grid and following successful trials by contractors, Balfour Beatty, the Hinkley Connection Project has used Sureground for the hard standing and a section of the haul road at its construction compound in Sandford.

Traditionally, these temporary surfaces are built using rock and stone, with tonnes of aggregate imported onto the site from local sources. Sureground is a more sustainable alternative.

Sureground solution is mixed on site with existing sub soil and compacted. It hardens the soil to make the road surface. It's a more sustainable solution as it means fewer lorry movements, a reduction in vehicle related emissions and a reduction in the quantity of stone and aggregate transported onto site from other locations.

Now that this method of stabilisation has been tested, trialled and used on the Hinkley Connection Project, National Grid is hopeful that more sustainable alternatives like Sureground can be used on future projects.



“At National Grid we continually strive to find better ways of doing things. Part of this is developing world-class engineering solutions and harnessing the latest innovations to deliver the best results for our customers, the local community and the environment,” says Matt King, SHESQ Manager for National Grid.

Archaeology on the Hinkley Connection Project

The route of the Hinkley Connection Project passes through landscape which has been occupied and shaped by humans for over 40,000 years. Each period leaves its own trace, from incredibly rare Prehistoric remains, through to the more familiar Roman, Saxon and medieval periods.

All remains are finite and all too easily they can be damaged or removed without record. The information on our past ancestors, their beliefs, culture and ordinary ways of life can be lost without trace.

National Grid is committed to preserving and recording the historic environment. During the very earliest planning stages of the project we carried out detailed investigations to see whether there's likely to be any archaeology under the ground.

Well before permission was granted, the route was assessed to see what known archaeology was present and where it was believed previously unrecorded remains might be found. The route of the new connection was guided by this information to reduce the impact on the

most important known and protected remains. Surveys were also carried out to try and identify the location and importance of any hidden archaeological remains.



Our specialists dig trial trenches to look for hidden archaeology

The final approved route crosses areas of known and potential archaeological remains. Any archaeology finds are either preserved by record or where achievable, significant remains may to be preserved in situ for future generations to investigate.

Each stage of the Hinkley Connection Project requires its own archaeological recording, detailed in a document called an Archaeological Method Statement. This details the level, standard and location of the archaeological investigations to be carried out, either before or during construction.



Specialist archaeologists are studying the site of a Roman roadside settlement

A great example of this is an excavation on the Mendips, as part of our work to install underground cables. The route was investigated by desk study, geophysical survey and trial trenching before we were granted planning permission. We knew that one section of the route was likely to contain some important archaeology and, after discussions with the Local Planning Authority, the area was demarcated as needing detailed excavation to preserve and record any findings before construction work starts.

As can often be the case with buried archaeological remains, the significance of a site is often revealed only after detailed and larger scale excavations have commenced and the site understood in greater detail.

Discovering the remains of a Roman roadside settlement

The remains of Roman roadside settlement have been discovered along the route of the underground cables through the Mendip Hills.

The settlement sits in a wealthy Roman landscape not far from ancient lead mines at Charterhouse-on-Mendip.

Daniel Connor, Project Archaeologist for Balfour Beatty says, *“The site has a wonderful level of preservation, with archaeological deposits starting just below ground level. This has allowed our investigation to start from the demolition of the last phase of building all the way to the earliest phase of activity on site.”*

Those early activities include use of the site as a rubbish dump. A collection of pits filled with Roman rubbish including deer antler, pottery and other discarded items have been found.

Trace remains called beam slots suggest that small rural buildings formed the next phase of construction along with drain gullies. These buildings were then built up and evolved into larger structures complete with stone foundations and large stone-lined drains. These include an open-faced building – possibly a workshop – and a metalled courtyard-type area.

The artefacts and types of structures found indicate a higher level of wealth in the settlement than the experts would deem typical for this rural landscape. Among the items discovered are brooches and coins from 2nd century AD through to 4th century AD. A further significant discovery under the floor of one of the buildings is a Roman baby burial – a typical burial method for ancient Roman people.

Daniel adds, *“The site is a fantastic example of a Roman roadside settlement which has already increased knowledge of Roman occupation in the North Somerset area. We have not finished yet and expect to find more evidence of the settlement and its inhabitants.”*

The site is still being excavated and is not accessible to the general public. It is hoped, however, that a planned outreach event for local historical societies, currently postponed due to Coronavirus, can be held later in the year.



The findings are increasing our knowledge of Roman life in North Somerset

Looking after the environment

Leaving a positive legacy - improving the Strawberry Line

The Strawberry Line Path is an ambitious project aiming to create a continuous 30-mile traffic-free path running from Clevedon to Shepton Mallet. Much of the route follows the old Strawberry Line train trackbed.

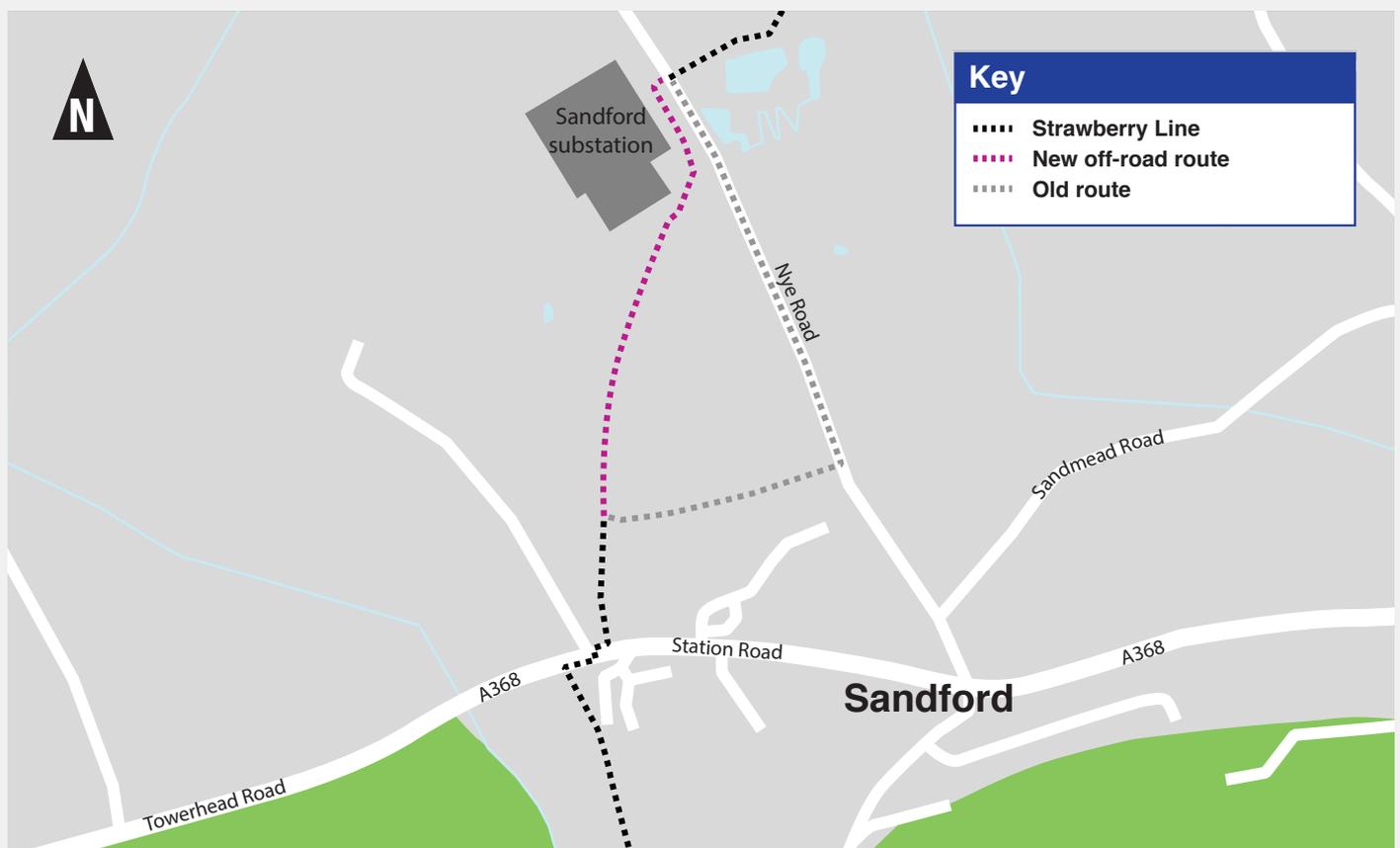
Parts of the path, including a section from Yatton to Cheddar are already complete and enjoyed by thousands of cyclists, walkers, and parents with buggies and the new Sandford substation sits close to where the path currently runs along Nye Road, a busy, narrow country lane.

To improve the path in this area, we’re making space available around the boundary of the new substation to re-route this section off-road and we’ll build a quality hard surface suitable for all users. This work should be completed by mid 2023.

Mike Painter, Project Manager for National Grid said: *“We’re delighted to be able to reroute the Strawberry Line path away from the road. It will make this section of the path safer for everyone who uses it.”*



We’re re-routing the Strawberry Line away from Nye Road



Water voles – conservation in action

In Somerset, with its famous levels and rhynes, there is an abundance of wildlife and our surveys have identified many protected species along the route of the new connection, including water voles. These elusive mammals, forever immortalised as ‘Ratty’ in Kenneth Grahams’ *Wind in the Willows*, were once a common sight on waterways throughout the region. However, predation from invasive American mink combined with habitat loss and fragmentation have resulted in the water vole now being considered one of Britain’s most endangered wild mammals.

Water voles and their burrows are fully protected under the Wildlife and Countryside Act and we are working hard to ensure we protect their habitat while we carry out our work. Wherever possible we are avoiding working in areas where there are water voles present. Where this isn’t possible our specialists, following guidance from Natural England, have developed detailed mitigation plans that include removing

riverside vegetation and encouraging the voles to relocate, and then removing their burrows when they are safely out of harm’s way to prevent the animals’ return once works start.

These conservation activities must be carried out between mid-February and mid-April and must be carried out under a special licence.



We’re working to protect local water vole populations

The Somerset Mink Project – a long term programme to protect water voles

We’ve donated £20,000 to Bristol Avon Rivers Trust (BART) and Somerset Wildlife Trust (SWT) to finance a year-long study into the effects of American Mink on native water vole populations in the county.

American mink were first imported to the United Kingdom for fur-farming in the 1920s and by the Late 1950s, escapees had established themselves in the wild.

The proliferation of mink has been linked to a decline in water vole populations and is known to have had a damaging effect on nesting birds and fish stocks.

Although the water vole has a number of natural predators (ranging from herons to otters) none have the same capabilities as American mink. Mink can swim and run extremely quickly, following water voles in and out of the water; and female and juveniles are small enough to fit into water vole’s burrows, limiting opportunities to escape.

A female mink with young is capable of killing all water voles living within a 1.5km stretch of riverbank, in a single breeding season. Removing mink from the environment can help water vole populations to recover.

The National Grid-funded study will take place in two areas where BART and SWT are currently working: the River Chew catchment where American mink has had a significant effect on fish numbers; and Westhay Moor

National Nature Reserve where it is hoped that reducing the number of mink will encourage water voles to repopulate the river bank.

Simon Hunter, Head of Operations at BART said: *“We are pleased to be working in partnership with National Grid and Somerset Wildlife Trust to monitor the number of American mink throughout the River Chew catchment and Avalon Marshes.*

“The results of the study will help us develop a programme to remove mink for the area. As well as working towards increasing populations of water vole, removing American mink from the ecosystem, is likely to help increase populations of other native species, including fish and nesting birds.”

James Goode, Director Hinkley Connection Project said: *“We hope this study, along with the practical steps we are taking to protect water voles, will leave a positive and lasting legacy for wildlife and the environment in this area.”*



The decline in water vole populations has been linked to increasing numbers of American mink in the wild

Engineering positive futures

School grants top £350,000

Since 2018, the Hinkley Connection Project has awarded £345,000 in grants to 538 schools in Somerset, Bristol and South Gloucestershire – the areas most impacted by the project.

Schools have spent the money, which has benefited over 130,000 pupils, on STEM equipment ranging from programmable robots to 3D printers and everything in between.

“The Hinkley Education Fund is part of National Grid’s commitment to encouraging and inspiring the next generation of engineers and we want to ensure our project leaves a lasting legacy for local people,” says Project Director, James Goode.

Every state funded primary and secondary school in the local authority areas of Bristol City Council, North Somerset Council, South Gloucestershire Council, Somerset County Council, Sedgemoor District Council and West Somerset Council is eligible to apply for a £500 or £1250 (for secondary schools) grant for STEM equipment every year of the project.

Haygrove Secondary School in Bridgwater put its 2019 £1,250 grant towards a laser cutter for the Design and Technology Department. *“The cutter enables the rapid build of prototypes, exposes our pupils to new*

technology and enhances creativity,” explains Lynne O’Hallaran. *“It has made a huge difference to the depth and range of STEM projects students can undertake.”*

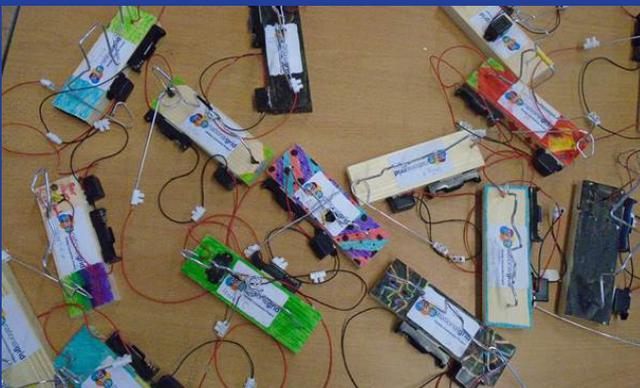
The Redstart Primary School in Chard spent their 2019 grant on six advanced, programmable floor robots for children in Key Stage 2 to use. Teacher, Roger Hunt says, *“The children have loved working with their new InO-Bots. Their programming skills have deepened dramatically, and their enthusiasm has been wonderful to see.”*

Applications for the 2020/2021 fund opens in September 2020 and more information on how to apply can be found [here](#).



Energy and You – providing schools with additional STEM support

We’ve developed a programme of engagement with primary schools in areas that are most affected by the project. Working with specialist provider, STEM Works, we’re offering a range of resources and educational visits to support the curriculum.



KS 2 students are challenged to design and make a buzz wire game that uses an electronic circuit

These include classroom workshops geared around the national curriculum for both KS1 and KS2 pupils. Using practical challenges, they encourage students to explore more about electricity and why we need it and to discover we get our electrical energy from and how it gets to our homes and business where it is used.

Although all visits are currently on hold due to COVID-19, we hope to reach 18 schools closest to our project before the end of the year and we will arrange new dates for workshops when the schools return.

James Goode, Project Director, Hinkley Connection Project said: “We’re delighted to support schools in towns and villages along the route of the new connection.

“We hope the pupils will understand more about our work to connect new sources of green and low carbon energy and the workshops will spark their interest to study STEM subjects in the future.”

Community matters

From Tarnock to Somewhere To Go

A large food parcel has been delivered to Weston-super-Mare based charity, Somewhere to Go.

The charity runs a day centre for rough sleepers and offers food, support and advice. Staff from Balfour Beatty and National Grid working at the main construction site in Tarnock, donated food and toiletries. The team collected six boxes of goodies which were delivered to the charity just before the COVID-19 lockdown.



Kelle Hebron (right) who organised the collection at Balfour Beatty's site office in Tarnock presents the donations to Julie Shannon

Julie Shannon, Day Manager at Somewhere to Go said: *"I would like to say a big thank you for the fantastic donations collected for Somewhere To Go Day and Night. We have been able to use your donations to make up food parcels for the rough sleepers and vulnerable people who use our centre.*

"It has made a real difference especially in the last few weeks, which have been particularly difficult due to the current situation with COVID-19."

Balfour Beatty's office manager, Kelle Hebron said: *"We wanted to help those who don't have the home comforts we take for granted. Somewhere To Go is a fantastic charity and makes a real difference to the lives of those who use its services."*

Supporting charities to bring aid to the vulnerable during coronavirus crisis

National Grid has donated £100,000 to the [Trussell Trust](#), which is working to deliver aid across the UK during the coronavirus outbreak.

As the country works to combat the COVID-19 virus, some of the most vulnerable are suffering from its affects, whether through ill health or the economic impact. The Trussell Trust runs the UK's largest network of 1,200 food banks and provides emergency food to people in crisis.

The Trust's food banks offer those in need a minimum of three days' worth of nutritionally-balanced food, something that is more vital than ever as our communities cope with the wide-reaching impact of coronavirus. We're also working with the Trust to develop a volunteer programme for our employees across the country.

"As the coronavirus pandemic develops, we are working closely with our food banks to support them to continue to provide the lifeline of emergency food for people in crisis. We're extremely grateful for the support from National Grid, which helps us remain agile to respond to the changing situation and deploy resources to support those most vulnerable throughout this time," explained Sophie Carre, Head of Corporate Partnerships at the Trussell Trust.



"We're proud to be playing our part in helping the most vulnerable in society. I hope that, through this contribution, we will be able to quickly get help to the many elderly, homeless and families living in poverty at this troubling time," explains our UK Executive Director, Nicola Shaw.

Contact us

For further information please contact our Community Relations Team

hinkleyconnection@nationalgrid.co.uk
www.hinkleyconnection.co.uk

0800 377 7347 (24 hour)
 Freepost H POINT CONNECTION