

GRIDLINE

The magazine for landowners

WINTER 2014

nationalgrid

The last
adventure

The visionary gambling
everything on green

CIRCUIT
MAKER

In the tyre tracks
of the greats



Sleigh belles

A beautiful blast of Siberia in suburbia

PLUS: Protecting the landscape • Teamwork key to upgrade • Britain's most eccentric sport • Win a luxurious break

WELCOME TO GRIDLINE

Teamwork is key to any **successful partnership**, so our grantors' **ongoing support** is to be celebrated

Protecting the environment and researching new, efficient energy sources are increasingly part of the forward planning list at National Grid.

That's why we're constantly working with stakeholders to find the best-balanced and least invasive way of developing the network with minimum disruption.

Take the Visual Impact Provision initiative (page 6) we are leading, looking into replacing, re-routing, and screening cables and overhead lines to protect landscapes around the UK.

Elsewhere in this edition, we spotlight how a multi-agency approach to major refurbishment in a busy urban area changed the lives of families living there, with as little upheaval as possible.

We also caught up with one grantor whose 40-year-old dream of opening an eco centre is about to reach fruition, and a businessman who has turned a struggling motor circuit into a thriving driver experience venue.

Because Christmas is fast approaching, we wanted to take a look at an unusual series of events that go on at one of National Grid's biggest grantors, the



Forestry Commission. So the Gridline team donned winter woollies to meet up with the small, but dedicated, band of husky racers as they started their cold weather training for the season.

Over the year we hope

we've brought you some fascinating glimpses into the lives of other landowners, but remember, it could be your venture in a future edition, so please do get in touch. In the meantime, I'd like to wish you all a wonderful Christmas and a peaceful new year.

Dawn McCarroll
Editor, Gridline

BE A PART OF GRIDLINE

All the grantors we featured in the last edition contacted us with their story, so why not drop us a line?

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Email: gridline@nationalgrid.com

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Summersault Communications,
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nationalgrid

Some useful contact numbers

The Land & Business Support team is responsible for acquiring all rights and permissions from statutory authorities and landowners needed to install, operate and maintain National Grid's electricity and gas transmission networks. The Group acts as the main interface for landowners who have gas and electricity equipment installed on their land. Your local contacts are listed below.

ELECTRICITY AND GAS

➔ North-west and Scotland 0161 776 0706

➔ South-east 01268 642 091

➔ South-west 01452 316 059

➔ East 0113 290 8235

WAYLEAVE PAYMENTS

➔ For information on wayleave payments, telephone the payments helpline on 0800 389 5113

CHANGE OF DETAILS

➔ To inform National Grid of changes in ownership or contact details, telephone 0800 389 5113 for electric and 01926 654 844 for gas, or email grantorservices@nationalgrid.com

ELECTRICITY EMERGENCY

➔ Emergency calls to report pylon damage to National Grid can be made on 0800 404 090. Note the tower's number – found just below the property plate – to help crews locate it

ELECTRIC AND MAGNETIC FIELDS

➔ For information on electric and magnetic fields, call the EMF information line on 08457 023 270 (local call rate). Website: www.emfs.info

GAS EMERGENCY

➔ 0800 111 999

DIAL BEFORE YOU DIG

➔ Before carrying out any work in the vicinity of gas pipelines, overhead power lines or underground electric cables, you should contact Plant Protection on 0800 688 588 so that searches can be made to determine the exact position of any National Grid assets

CUSTOMER COMMENTS

➔ Write to Land & Development, National Grid House, Warwick Technology Park, Gallows Hill, Warwick, Warwickshire, CV34 6DA. Or email ld.customercomments@nationalgrid.com



Gridline is produced by
Summersault Communications
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Leamington Spa
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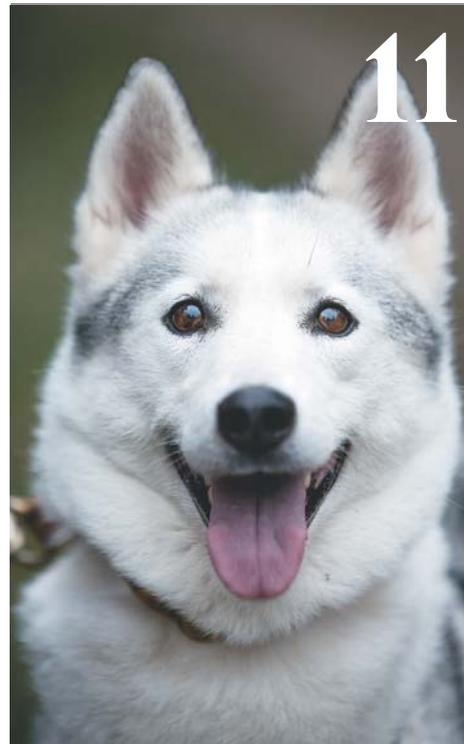


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20 Burnished gold

John Ridley captured autumn with this riverside image to win a £150 spending spree. Fancy a shot? Turn to page 20.

The Turner prize

Congratulations to David Turner from St Helens on Merseyside, who wins a Samsung Galaxy tablet for correctly stating that the cherry farmers hope to harvest 100 tonnes next year. For your chance to be a winner this time, turn to page 20.

Shopping joy for delighted dozen

Twelve lucky grantors have been rewarded for their quick response to supplying land ownership details with a £50 high street shopping voucher.

National Grid's database of gas grantors contains some 11,000 owners/occupiers, who are along its 7,700km pipeline route.

"We'd like to thank everyone for their continued commitment in responding to our letters," said Kam Liddar, asset

protection officer for National Grid. "Keeping our database up to date is critical for the maintenance of a safe and efficient network."

The winners are: Mr and Mrs R R & S J Arden; Ms A J Cox; Sally Hyson; Mr and Mr A G & R Waite; Mr and Mrs D R Poplett; Mr M A Foster; Mrs J Herbert; Mr P Seabrook; Mrs C E Graham; Mrs J M Baker; Mrs Kelly Goddard; Mr N C Hood.



Future proofing

NATIONAL GRID is taking part in a Farm Power project highlighting how the nation's farmers can create a step change in the adoption of low-carbon energy production.

Forum for the Future, which is leading the project, argues that income from wind, solar, anaerobic digestion and hydro has the potential to enhance food production by making farmers more resilient to rising energy prices.

So-called 'distributed generation' in the rural community also supports the local energy system

with a supply of low-carbon energy, and promotes job creation and rural economic development.

Research suggests that small-scale solar and wind developments on areas of land that are unsuitable for crop production can co-exist with meadow-based biodiversity.

"This is a great initiative and we're pleased to share our insights into the energy system, the merits of various technology choices, and the policy landscape to help farmers make the right choices," said Neil Hughes, head of future

technology at National Grid.

"Having National Grid on board, supporting rural communities and the vision of a low-carbon future, is a real asset," said Nicky Conway, Forum for the Future project lead.

Grid stars' cuppa of cheer

So far this year National Grid employees have raised a staggering £200,000 for Macmillan Cancer Support.

The figure includes more than £46,000 raised from the World's Biggest Coffee Morning event at various sites. Every pound raised was matched by National Grid.

Employees have been involved in other fundraising events, such as the London 10k, the Great Manchester Swim, London to Paris Bike Ride and the Ben Nevis Midnight Challenge - where 40 employees climbed Ben Nevis to



raise an incredible £26,000.

National Grid chose Macmillan as its charity partner in October 2013, and set a fundraising target of £500,000 over two years to help provide heating grants for 2,500 people affected by cancer who are struggling to pay their fuel bills.



A bird's eye view of UK

Do you know your chiffchaffs from your willow warblers? If so, we'd like your help!

Minimising the impact of our operations on birds and other wildlife is important to National Grid, so we want to know as much as we can about local birds and where they are before we start any work. That way, we can plan to make sure we don't disturb them at important times of the year, like the upcoming nesting season.

We've created a database to map bird sightings, so if you spot any on or around our infrastructure, let us know at ssr.sustainabilityandcc@uk.ngrid.com to help us build a detailed picture of UK bird locations.

It's good to be back!

FORMER NATIONAL GRID engineer Norman Cooke took a stroll down memory lane when he was invited to the site he helped commission half a century ago.

US president John F Kennedy's assassination shook the world and The Beatles claimed number one spot with I Want to Hold Your Hand when Norman worked on the opening of Ferrybridge C substation near Pontefract.

He stayed with the Central Electricity Generating Board, and its successor companies, for 37 years, eventually retiring as an executive engineer in 1991.

As well as maintaining

switchgear and transformers at substations up to privatisation in 1990, he was part of a team that ensured 8,360MW of electricity flowed into the grid from four power stations in West and North Yorkshire.

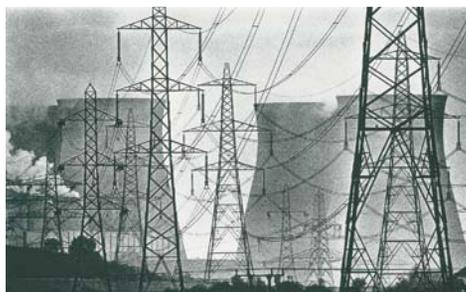
"The technology looks a bit different today. Most of the secondary equipment, like metering, is digital now," said Norman.

"But the system is still recognisable and we were always a very

safety-conscious industry."

He can still recall the day in November 1965 when high winds caused three of the eight cooling towers at Ferrybridge C power station to collapse.

After retiring, Norman worked part-time as a lab assistant in a local school: "A bit of a step down from working with 400,000 volts to 12 volts, but it was all they'd trust us with," he laughed.



Norman Cooke (fourth from left) revisits site he once worked at

Energising the arts

The creative arts and science have come together in a unique collaboration between National Grid and Islington-based charity All Change.

Local professional artists for the charity have delivered 12 creative workshops with community groups based near the construction site of a new substation in Islington.

Highbury substation will be connected to the London Power Tunnels project - a new 32km electricity superhighway being



Alistair Kalama, a trainee support worker for the duration of the partnership, tells local people about the project

constructed beneath the streets to transport power supplies across the capital.

The community groups have created artistic and poetic designs for the construction site hoardings.



One-minute interview



Anna Eastgate, solicitor and national consents manager

BACKGROUND: I joined land and development in October, having worked as a planning solicitor at National Grid, and before that in local government and private practice.

CURRENT FOCUS: Working with a great team to secure consents for a variety of new gas and electricity infrastructure projects.

LEISURE INTERESTS: My two sons and I are season ticket holders at Nottingham Forest. I'm an avid reader and love walking and the outdoors.



FAVOURITE MOTTO: Patience is a virtue, which is often well rewarded!

GREATEST EXTRAVAGANCE: Fresh flowers in the house.



WHAT LAW WOULD YOU CHANGE: That's a dreadful question to ask a lawyer!

FAVOURITE HOLIDAY DESTINATION: The Greek islands for the great weather and friendly places.

IDEAL DINNER GUEST: Robin Williams or Ronnie Barker, both comic geniuses.

IF YOU COULD GO BACK IN TIME: Henry VIII's court. I'm fascinated by the Tudor period, Henry's wives and the English Reformation. And I would love to wear the dresses!

Protecting our national landscape

National Grid is taking **major steps** to **reduce the impact** of transmission power lines in nationally **protected landscapes** in England and Wales, such as the Tamar Valley

TWELVE SECTIONS OF HIGH VOLTAGE lines in eight Areas of Outstanding Natural Beauty (AONB) and National Parks in England and Wales have been shortlisted as having the most significant landscape and visual impact in an independent study overseen by landscape expert Prof Carys Swanwick.

The study is part of National Grid's Visual Impact Provision (VIP) initiative to reduce the visual impact of existing lines in protected areas, funded by a £500 million allowance from Ofgem until 2021. The project is being managed by National Grid's policy planning team, led by Hector Pearson, project manager, and Ian McKenna, senior policy planner.

A total of 571km of transmission lines in England and Wales's landscapes were assessed and a range of options will now be considered, including replacing overhead lines with underground cables, re-routing existing lines, and the screening of substations or overhead lines from public viewpoints.

A Stakeholder Advisory Group is helping National Grid identify and prioritise how the

fund should be allocated. The group - chaired by leading environmental consultant Chris Baines - is made up of a number of organisations including the Campaign for National Parks, Campaign to Protect Rural England, Cadw and the National Trust.

Members of the group have recommended that a study on a section of transmission line in the Tamar Valley AONB should now be progressed to assess the feasibility of engineering works to reduce visual impact.

Decisions about other shortlisted sites will be made in spring 2015, following engagement with local stakeholders and further investigation of technical feasibility, as well as economic, social, archaeological, environmental and heritage issues. It is envisaged that between three and six schemes will be taken forward to full engineering works.

For more information...



... on the project, go to www.nationalgrid.com/vip



We're making sure that small really can be very beautiful

In addition to taking forward a number of large engineering projects in protected landscapes, National Grid will use part of the £500 million allocation for smaller, localised visual improvement projects, which can be accessed by all AONBs and National Parks with existing National Grid electricity infrastructure.

Set to be launched in 2015, this landscape enhancement initiative will provide up to £24 million over six years. As well as reducing the visual impact of overhead lines, the aim is to make a positive contribution to natural beauty, wildlife, biodiversity, cultural heritage and public enjoyment. A range of measures will be considered, including localised screen planting, landscape restoration through habitat improvement, stone wall repair, footpath resurfacing, and even ambitious schemes such as car park and viewpoint relocation.



“By working with a range of stakeholders at a national level, we have a major

opportunity to preserve and enhance beautiful landscapes throughout England and Wales.”

Chris Baines, chair of the VIP Stakeholder Advisory Group



“At the heart of the project is collaboration between National Grid, those organisations tasked with protecting Britain’s treasured areas and the people who live in and visit these landscapes.”

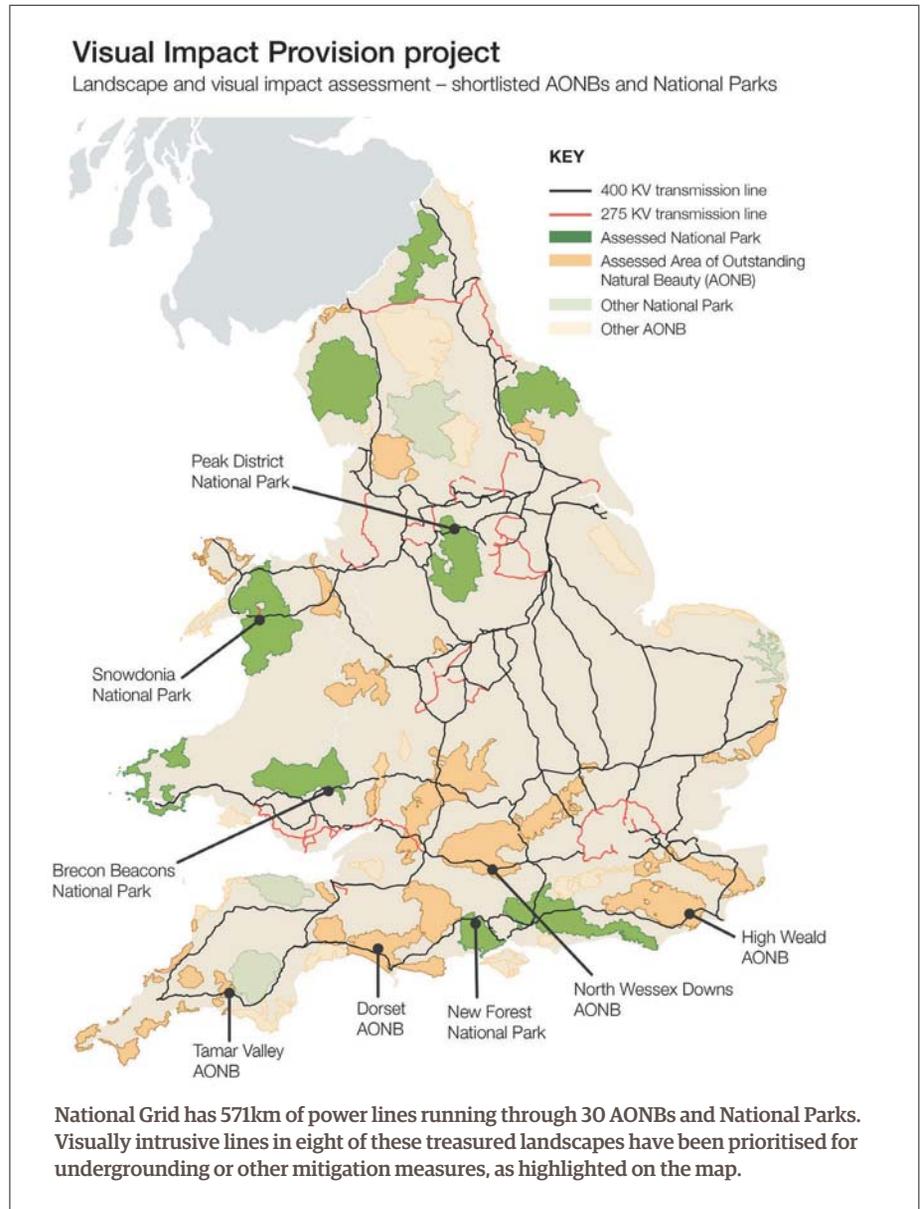
George Mayhew, National Grid representative



“We know it can be a big challenge for modern infrastructure

to work in harmony with the landscape, but it can be done when people work together to find the best solution.”

Dr Ingrid Samuel, historic environment director at the National Trust



In numbers

£500m

to be spent on reducing visual impact of overhead power lines

7%

of National Grid’s network is in AONBs and National Parks

571km

of overhead power line in AONBs and National Parks

LICENCE TO **THRILL**



Castle Combe **race circuit** in Wiltshire is today a mecca for **red-blooded motorsport enthusiasts** - a far cry from 40 years ago when it faced an **uncertain future**



It's a track day at the Castle Combe race circuit and, as usual, the place is buzzing.

Out on the circuit, a procession of cars - including BMWs, a Porsche and a Honda - are exiting one of the circuit's challenging corners, tyres scrambling for grip and engines screaming as the drivers pile on the power.

The 1.85-mile circuit, near to the picture-postcard village of Castle Combe, Chippenham, is known as one of the fastest in the country, with spectators able to get a close-up view of the action.

"Track days enable petrolheads to explore the limits of their driving ability - and the limits of their car or bike - in a safe, controlled environment," explained Graham Marshall (above), managing director of the circuit.

Apart from paying a track fee, owners must have a driving licence and MOT, and attend a safety and track briefing, while vehicles must pass a sound check to meet strict noise regulations.

It's clear Castle Combe is home to a thriving motorsport scene, but the future didn't always look so bright.

Determination

Racing started on the former Second World War airfield in 1950. Many of the top drivers of the day, including Stirling Moss, cut their teeth on the circuit.

Car racing was suspended for seven years in the wake of a safety crackdown after the Le Mans 24-hour race tragedy of 1955, in which 80 spectators were killed. It only resumed after extra safety barriers were installed.

A new threat emerged in the next decade when the owners became embroiled in planning permission battles over noise. By 1972 the circuit was limited to just five days of racing and on the brink of closure.

That the circuit survived at all was down to the determination of Graham's father-in-law Howard Strawford, who took control of the circuit in 1975.

Permanent planning permission was granted on appeal in 1982, paving the way for a process of development and diversification over the next 35 years. A business with a turnover of £15,000 a year - employing one person to cut the grass - was transformed into an operation



employing 20 people with a turnover of £1.5 million.

Howard founded a racing school offering driver experiences, a skid pad, kart track and four-wheel drive centre. And new media and conference facilities were added.

Exciting experience

Improved trackside spectator access and additional catering facilities also contributed to Castle Combe's growing reputation as the visitor-friendly circuit, while its attractive parkland setting was

enhanced by the planting of 2,000 trees to mark the millennium. Howard passed away last year, but the circuit remains a family-run business, with his widow Pat and two daughters Karen (Graham's wife) and Emma involved.

"We're determined to protect Howard's legacy and run the circuit in the way he would have wanted," said Graham. "It's about giving spectators and drivers what they want - which is an exciting experience."

Today, there are 12 permitted race events, the backbone of which is Castle Combe's own popular season-long championships for Formula Ford 1600 single seaters, GTs and saloon cars.

Planned enhancements include public WiFi at the circuit so that race results can be viewed on handheld devices, and CCTV to enable instant action replays.

An expanding programme of 'non-noisy' activities means the circuit is in use for more than 250 days a year. There are cycling and running events, an annual steam rally and eight car boot fairs a year too.

Currently, planning permission is being sought for a 4MW solar farm on the circuit infield. Potentially, new

underground connections from the site to Chippenham substation could enable electric car racing at the circuit in the future. Graham explained: "Electric cars are environmentally friendly, but also seriously competitive, achieving top speeds of more than 150mph."

The winter months are spent carrying out essential maintenance and facility upgrading, as well as planning the new racing season, which starts in April.

"We're busy all-year-round, so there's no danger of any tumbleweed blowing around here," laughed Graham.

Fast facts

- ➔ The high safety banks round the circuit were constructed using excavated spoil from local supermarket construction projects.
- ➔ F1 world champion James Hunt appeared as an expert witness for the circuit in the 1981 planning appeal that secured its future.
- ➔ The track hosts 'have a go' driving Action Days, along with other events, that raise thousands for charity and also help offset overheads, such as track resurfacing at an estimated cost of £500,000.
- ➔ Two chicanes were added in 1999 to cut speeds after a wheel flew into the crowd killing a spectator (lengthening the circuit to 1.85 miles).

IN THE LINE OF DUTY

The **eccentric** and hotly contested **sport** that's all about **prestige**

In an age when footballers command astronomical appearance fees simply for pulling on their club's shirt, there's something reassuring about another lesser-known, but no less traditional, British sport.

Like football, match ploughing is a spectator event we gave to the world, but there the similarity ends. Because with ploughing, competitors travel thousands of miles purely for the prestige of winning.

There are no payments and little prize money - even travelling expenses have to come out of the entrant's pocket - but the ploughmen are as passionate as a Premier League striker scoring in front of a full house at Wembley.

Ploughing matches are a hotly contested sport in the agricultural calendar, with the majority of entrants competing in the vintage pre-1960 and classic 60 to 1976 sectors.

Grantor Roger Ingham, a modest veteran who lists his competition wins as 'a good few', was hooked from the first time he watched a match 35 years ago.

"Nowadays, ploughing on farms is industrial and all about speed and productivity, but match ploughing is

an event that puts the ploughman's skill first," he explained.

"You have to be a perfectionist because the judges are looking for excellence in very different disciplines, which all require time and finesse to do well."

Lone furrows

➤➤ 1931 - two men from neighbouring counties in Ireland argued over who had the best ploughmen and so match ploughing was born.

➤➤ 1951 - the first British Championship Ploughing match was held at Newton Kyme, North Yorkshire, arranged by the British Ploughing Organisation.

➤➤ 2016 - the 63rd World Ploughing Championships, incorporating the 66th British National Ploughing event, will be held at Crockey Hill, near York, between 8 and 11 September.

Artisan past

This sport - Roger calls it a hobby that's kept him active into his seventh decade - is a throwback to a bygone era when farmers ploughed three to four acres a day.

With a need for speed and efficiency, it's now nearer 40, with little attention to straight lines and quality of the plough, making match ploughing a quaint and slightly eccentric relic of our artisan past.

Roger, who ran an agricultural vehicle contracting company after a youth spent working on farms in his native North Yorkshire, now organises a competition that draws crowds of up to 500 in his local area of Tadcaster.

"I saw the first match and thought 'I can do that', bought a plough and I've got a collection of nine match ploughs now."

At the ploughing match, around 70-100 ploughmen battle it out on a patch of field 80 yards by 17 yards, each vying to have the most clearly defined and straightest furrows, create the best seed bed or the best opening to split the soil - just three of the nine categories judged.

Modern Formula 1 match ploughs come with bells and whistles, driven by

ploughmen who transport their rigs and mould boards from as far afield as Australia, New Zealand and Africa, again purely for the kudos of the world title. The driving force is to get to the top and stay there, but soil can often beat the best ploughman, so a good draw for your plot can mean a lot - a bad one and you're playing catch up.

Roger hails the Ransome TS86 as the Rolls-Royce of match ploughs and stresses their viability as an investment: "You could buy one for £600 in the 70s, but they're worth about £5,000 now. Starting off is quite cheap, but once the bug gets you, you want to upgrade. It's all about the man on the seat though really and that's the appeal."



ICE COLD

IN THE HOME COUNTIES

Penny Evans' **unlikely love affair** with Siberian Huskies began on Euston's **platform 1** in 1974... and it's been **full speed ahead** ever since ➔



It was 1974 and as Penny Evans waited beneath the Euston Station clock, engulfed by hordes of Scottish football fans, she had little idea her life was about to change forever.

She was due to meet a man about a second-hand camera, but as a gap appeared in the midst of the kilt-clad travelling supporters, he lost his sale in a split second.

A sturdy white 'Alsatian-looking' dog, whose steely blue eyes dared any of the vociferous mob to get too close to her or her owner, had captured Penny's gaze... and her heart.

The dog was, in fact, one of just 40 Siberian Huskies in the country at the time and mum to three puppies, who were due to be separated by the lady owner, whose husband was being posted to Cyprus on military duty.

Within 24 hours, Penny (right with husband Alan) had taken in four-month-old Natalia, who is directly related to every one of the 16 dogs that have passed through her home since.

A visit there begins with Penny sliding open the garage door to reveal nine huskies, who simultaneously bark and howl, their heads thrown back to the sky in a decibel-busting cacophony of noise, before they are shouted down and head back out to their huge back garden run. You might get away with it in the frozen wastes of Alaska, but in a cul-de-sac in Milton Keynes, Penny is grateful that she has understanding neighbours.

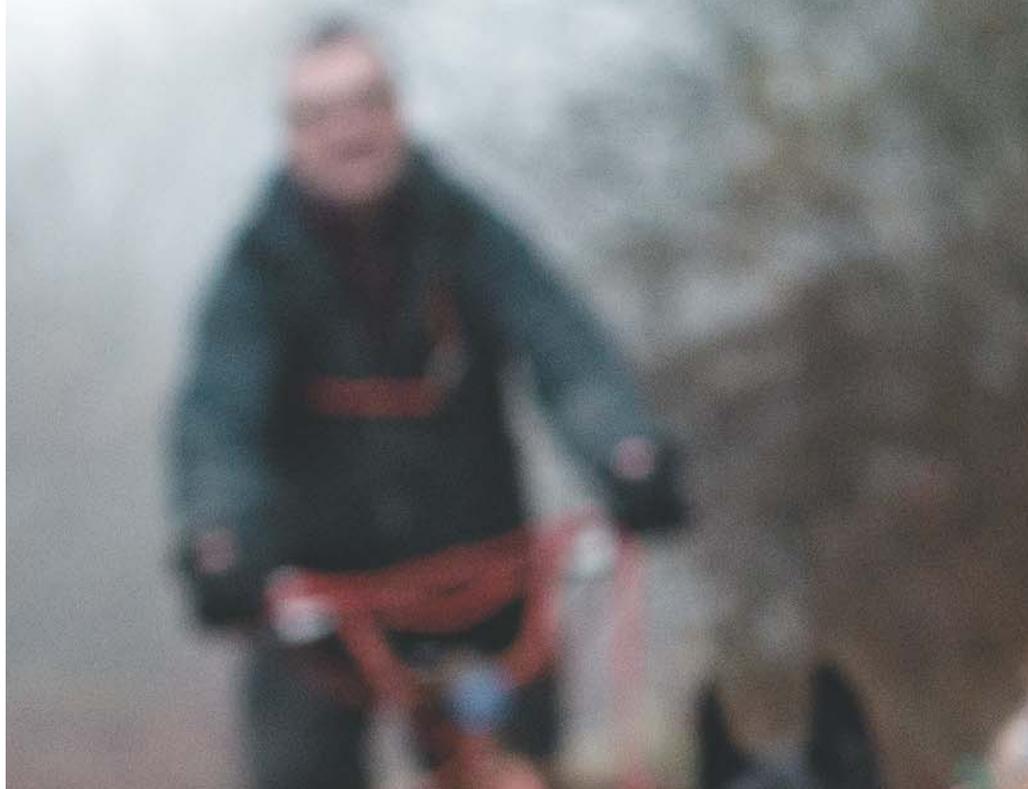
Misunderstood

Four decades after her epiphany on platform 1, Penny is an Honorary Member of the Siberian Husky Club of Great Britain and an advocate of these, often misunderstood, dogs being used as nature intended - to work or race.

The club's success depends on support from individual and larger corporate organisations such as the Forestry Commission - a National Grid grantor - who allow their land to be used for training and some of the 19 races held in the UK every year.

"We're always looking for grantors with upwards of four miles of tracks, ideally in a circuit, that could take the rigs and dogs, and has some parking," Penny said.

The racing bug quickly took its grip; Penny and her husband competing in the inaugural club race in Surrey in 1978. From then on, the camaraderie, friendship and, yes, trips to the pub, have



cemented the love affair.

Penny said: "The events are great fun and friendly, and everyone from hospital managers to builders take part. But in Alaska - the home of husky racing - it's a lot more cut-throat.

"Most races here are four-mile time trials, but we went to the All Alaska Centenary Run in 2008, which is run over 408 miles. The Iditarod from Anchorage to Nome is 1,048 miles."

Unsurprising then that these are dogs that have evolved to enjoy their work. "They're definitely not guard dogs. They'd defend their biscuits to the hilt while your TV was carried out the door," laughed Penny.

She believes huskies are the missing link between cats and dogs - intelligent, calculating and intensely loyal to their musher, the brave volunteer who holds the reins for a dry weather rig, or sled when there's snow.

Courageous

"We always pray for snow, but whatever the weather, you have to be very fit and courageous in racing as there is a lot of running up hills and the fastest dogs can reach speeds of up to 20mph. It's a young person's game," she said.

"At the start it's frenzied. There's lots of howling and screaming and then they're gone. The only way the musher can steer is by shouting gee (right) and haw (left) to the dogs. The musher has a claw that acts as a brake, but otherwise it's them and the dogs."

“You have to be very fit and courageous in racing as there is a lot of running up hills and the fastest dogs can reach speeds of up to 20mph”



The season runs from November to March and attracts around 230 competitors in categories from two huskies up to eight, with the dogs usually outpacing the bitches.

Penny, whose all-bitch ‘nunnery’ has a string of Crufts accolades to its name, said: “Huskies have grown in popularity since 1974. There are thousands in the UK now, but they are high maintenance and need entertaining and exercising. That’s why the Club is so important in keeping huskies doing what they are born to do and why we’re indebted to the grantors who let us use their land. Without them, huskies would become pets pure and simple, and that is when families who own them find they can’t cope.”

Siberian cold snaps

- Huskies’ eyes are set obliquely to keep the snow out and their feet are webbed to act as snow shoes.
- The dogs have two coats – the top one is waterproof while the bottom layer of fur is for insulation.
- They come in all colours, from black and white to ginger and grey.
- Their blood supply is unique, with arteries encircling the veins to keep the blood warm.
- The breed is known for being stubborn and disregarding obedience training at home, unless the owner establishes him or herself as the pack leader early on.
- They are escape artists and if allowed off the leash when walking,



they will chase things and not return. ➤➤ The biggest event of the year is held on Forestry Commission land in Glenmore Forest, part of the Cairngorms National Park.



POWER TO THE PEOPLE

Updating overhead power lines is **essential** if homes and businesses are to continue to enjoy **power** at the flick of a switch. But **delivering** these projects in **total safety** and with **minimal disruption** to the public is no mean **feat**



In November, a 10-month refurbishment was completed on a 9km section of a 275kV power line between Bustleholme and Oldbury in West Bromwich.

Planning for the £16-million project by the Electricity Alliance, a partnership between National Grid, and Babcock, Amec and Mott Macdonald, started over a year in advance.

Essential preparatory works began in January 2014, followed by the main refurbishment phases in two planned power outages between April and August.

A team of nearly 100 people, including 45 linesmen and a host of other specialists, were involved in bringing the project to a successful conclusion.

James Dear, project engineer, National Grid

“The densely populated and urban nature of the area presented significant logistical challenges.

“As well as crossing the M5 and M6 motorways, the overhead line follows the Tame Valley and Walsall Canals for a third of the route, and passes through residential streets, trading estates, a school, local nature reserve (Sheepwash Urban Park) and the grounds of a Hindu temple.

“The line was originally constructed in 1968 and the time had come to replace conductors and fittings. If left too late, the existing wires deteriorate to a point where you can’t use them to pull the new conductors into place. You then have to drop the wires to the ground, which is much more disruptive.

“Detailed site inspections were carried out a year in advance to assess the best way to complete the work safely, looking at everything from site access, to the amount of scaffolding and road closures needed, to security requirements.

“Vegetation clearance at the affected sites was completed in January and February before the bird nesting season. More than 500 trees were removed to provide access, but for every tree felled, National Grid pledges to replant another four in mitigation.”

Maddy Williams, community relations account manager, JBP



“It’s vital to engage with the local community at an early stage to manage expectations and raise awareness about temporary disruptions, such as road and footpath closures.

“We communicated with 3,500 neighbours and held 13 information events to explain how we work safely in close proximity to homes and

businesses. At peak work times, we knocked on doors to let people know what to expect - reminding them they needed to remain indoors while work was going on directly overhead.

“In several places, overnight road closures were needed. One street was closed completely for 144 days to enable protective scaffolding to be erected and we worked with local bus operators to arrange alternative routes. Sections of canal footpath were also closed during the summer months.

“In another initiative, we created links with two local schools where training was arranged for the pupils in the use of robots, to help inspire an interest in science, technology, engineering and maths.” ➔

Samantha Jones-Davies, wayleaves officer at Fisher German



“Fisher German is among a number of land agents across the UK that support National Grid on construction projects. We liaise with affected grantors and arrange access rights for the

works teams. We were on site 18 months before engineering began because the project included the construction of a new pylon and a conductor re-alignment, which needed new and revised easement agreements. We contacted 156 individual grantors about access routes, machinery and scaffolding sites.

“Accessing pylons on the edge of the Tame Valley Canal was difficult due to the limited working width and weight restrictions applying to towpaths. Stone tracks were constructed to enable maintenance equipment to safely access locations where no vehicle access existed. Special trackway was laid where additional ground protection was requested. Some landowners were happy for the stone tracks to be left, making a permanent access route. We provided additional signage for businesses and before every project is signed off, replanting and ground reinstatement takes place.”

James Dear (left) talks West Bromwich MP Adrian Bailey through the project during a visit by councillors



John Hancock, site delivery manager, Electricity Alliance



"Safety is an absolute priority and when conductors are replaced, everything below a span has to be protected from the work above.

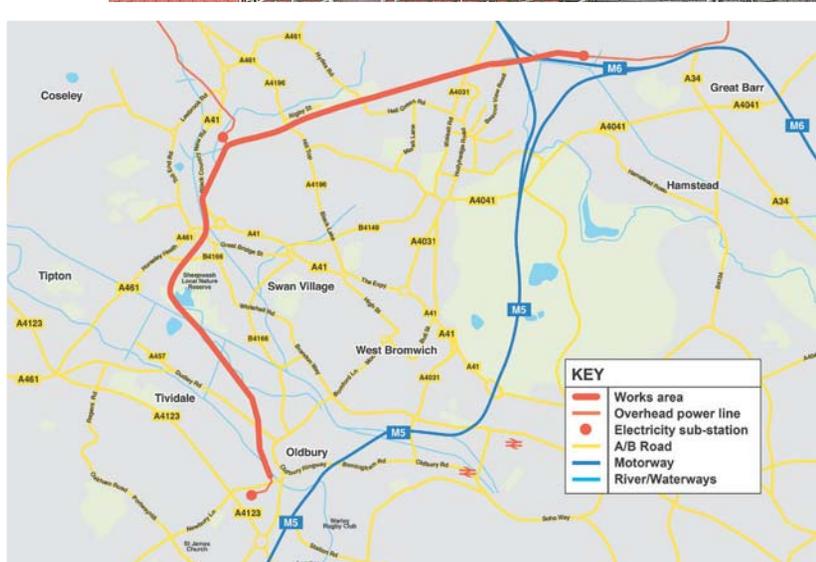
"Scaffolding and protective netting were brought in close to the start of construction to minimise disturbance,

along with Heras mesh-panel fencing to demarcate and protect the work zones.

"In 11 spans, we deployed a support system called Sky Safe, in which safety cables and machinery were suspended between pylons to prevent loss of the conductor in the highly unlikely event of a failure during installation.

"Sky Safe is a good alternative where there is insufficient space for scaffolding or where it would cause too much disruption. We used it over the M5 and M6 motorways to ensure there were no impacts on traffic below.

"We also brought in one of the tallest Mobile Elevating Work Platforms (MEWPs) in Europe to access pylons in particularly inaccessible locations, such as gardens. Normally, work platforms are winched into place, but sometimes there isn't a sufficient footprint around the tower for this to happen."



Jonathan Leitch, general foreman, Electricity Alliance



"During the project we replaced a pylon on a steep bank overlooking the Tame Valley Canal after condition assessments indicated that attempting to carry out foundation repairs would run the risk of undermining properties above.

"In March, we constructed a new pylon on the other side of the canal and transferred the circuits over during two scheduled outages. Then the old structure was dismantled,

section by section, in August using a crane on the other bank. The residents were fascinated by the removal of something that had been a permanent fixture for so long and we presented them with a DVD of the demolition as a memento."

Keith Lawley, local resident



"Having lived for 39 years with a pylon just 10 metres from our back door, it was fantastic news that it was going to be removed.

"During the project, Samantha, Maddy and the Alliance Wayleaves team kept us constantly informed about developments. If they weren't able to give a response to anything immediately, they would always return with an answer.

"The linesmen went out of their way to keep the street and garden as clean and tidy as possible during the works, and we were very impressed by the 100% focus on safety at all times.

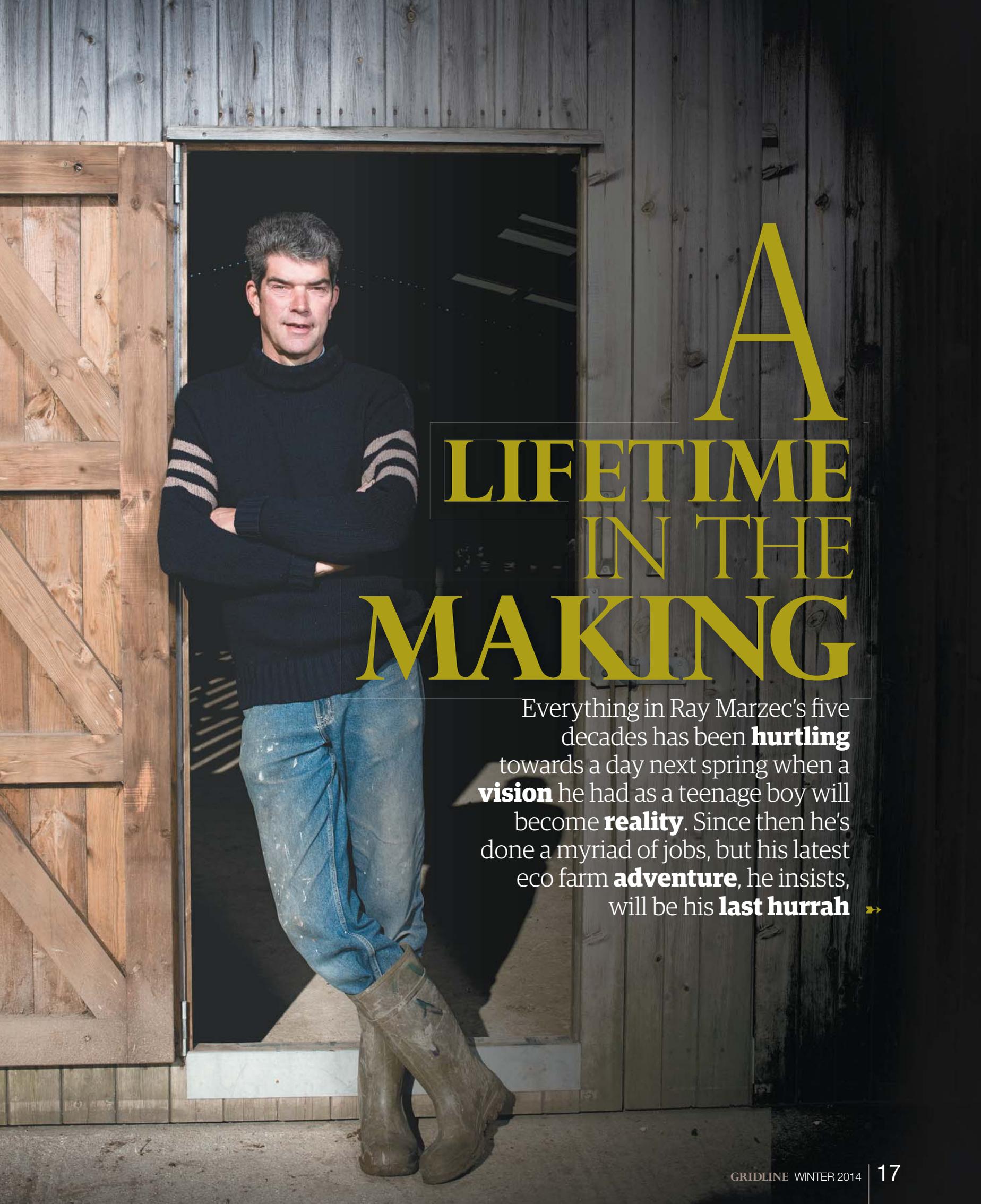
"At the project's conclusion, we were given a questionnaire. One of the questions was 'Did things go as well as you expected?' and I responded 'no' because our expectations were far exceeded."

In numbers

£16m cost of project

36 pylons

9km of conductor replaced



A LIFETIME IN THE MAKING

Everything in Ray Marzec's five decades has been **hurtling** towards a day next spring when a **vision** he had as a teenage boy will become **reality**. Since then he's done a myriad of jobs, but his latest eco farm **adventure**, he insists, will be his **last hurrah** ➤

Almost 40 years ago, a teenager in his living room watched television, transfixed as a farmer shared his vision of running a business dedicated to preserving Britain's rare breeds.

The Bygones show explained to the youngster that you needed as little as 50 acres to ensure traditional animals and fast-fading rural techniques remained alive.

The presenter was Joe Henson, father of BBC Countryfile presenter and celebrity farmer Adam. The teenager tucked up in front of the telly was Ray Marzec, a 19-year-old considering a career in either animals or art.

A four-year graphic design course eventually won the day - 'the thought of getting up at 3am put me off' - but only after he'd dabbled with accountancy, shift worked at car-maker Vauxhall, kept deer at Woburn Abbey and scrubbed up as a male nurse.

Throughout, the self-confessed jack of all trades supplemented his income by working on building projects in and around Buckinghamshire.

Year-on-year the spark lit by that mid-70s programme refused to die, with every house or barn he's ever rebuilt in between all leading Ray to one defining last project.

When the Eco Centre at the Green Dragon Rare Breeds Farm, in Hogshaw, Buckinghamshire, opened in October, it marked the end of an often gruelling 12-year battle to turn the long-held dream into reality.

"All the things I've done or buildings I've worked on have been rolling on to the next project, but now this is it. There's nowhere else to go. Everything is riding on this, so I can safely say I'll be buried here," he said.

Sustainable

With a vision to educate future generations about sustainable living and conservation, rather than making his fortune from the scheme, Ray - in scruffy jeans and trainers - makes an unlikely entrepreneur and is easily mistaken for one of the builders preparing for the opening of the farm proper next spring.

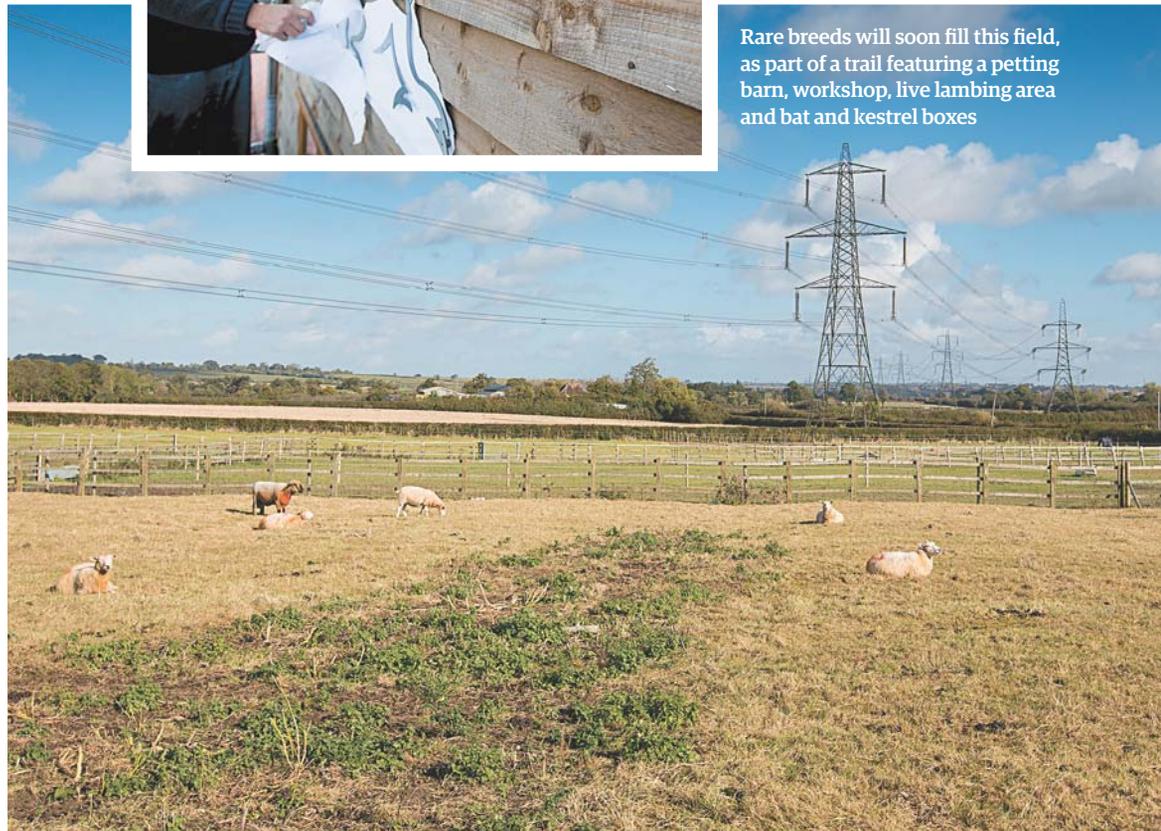
"If it makes a profit, we will reinvest it. As long as it keeps evolving, opens youngsters' eyes to the world around them and how it works, and allows me to live comfortably then it will be doing its job," he said.

Absolutely nothing will be wasted and no eco-opportunity missed at the 44-acre former

The timber-built Eco Centre showcases the latest in energy-saving technology for visitors of all ages



Rare breeds will soon fill this field, as part of a trail featuring a petting barn, workshop, live lambing area and bat and kestrel boxes





"All the things I've done or buildings I've worked on have been rolling on to the next project, but now this is it"

pig and sheep farm, crossed by pylons that cut a swathe through Aylesbury Vale. The timber-built Eco Centre, with its cafe restaurant showcasing seasonal produce grown on an on-site teaching allotment, will champion renewable energy, while a biomass boiler, photovoltaic tiles, solar panels and other technologies make it even more real.

Education first

Ray has also added rainwater harnessing technology that leads to reed beds designed to process waste, but the overarching aim of all is to fully engage young visitors.

Ray said: "It will be an educational site first, with fun thrown in. We have sandpits with fossils to dig for, a 45-metre dragon soil sculpture with tunnels the children can run through, a play area with giant dinosaur mural,

and lots of hands-on experiments to explain exactly what 20,000kW looks like and how insulation can make a difference - a little like the Science Museum.

"From spring we'll have the rare breeds, a petting barn for smaller animals, workshop area, live lambing, and a nature trail winding its way past bat and kestrel boxes. We'll show children the full cycle of how a seed grows into food, how we can cook the food in a haybox, how we eat it and how it ends up as waste at the reed bed, with all the processes in between."

Ray still has the enthusiasm of a child as he reels off potential offshoots for the site: cookery classes; gardening workshops; and investigations in the NatureLab.

"There's a museum in Tring where they have two dressed fleas. It's the one thing everyone talks about. I want people to have lots of things they talk about and remember forever after leaving here," he added.

Beating bureaucracy

His passion is perhaps heightened by the many challenges he's overcome to get this far, from banks repeatedly rejecting his business plans to bad weather halting building work and endless bureaucratic issues.

Planning was an issue, with the council initially reluctant to grant permission for the venture because the venue was too far from the nearest town and people couldn't walk there. But Ray's years of dogged persistence have paid off and his target of attracting 5% of the estimated half a million people who visit the two nearby National Trust properties and Buckinghamshire Steam Railway is close to being put to the test.

Collaboration will be key to that success and Ray's project manager, Lesley Maddox, is building strong links with local businesses and colleges, whose students have already worked on apprenticeships in the build.

She said: "There are a lot of areas where we can work with other local attractions and schools to offer employment and voluntary work so that too is adding to the site's sustainability. It's very exciting and if anyone can make it work, Ray has the passion and 'get stuck in' mentality to do it."

For his part, Ray, who has lived in a temporary home on the site during the years of building work, believes the venture offers him the best opportunity to finally settle down: "I'm not that good at any one thing, I'm a bit of an all-rounder, so this will suit me down to the ground. If it doesn't work, it won't be for want of trying. It's taken me a lifetime of rolling on investments to get this far, so I'm going to give it a damn good go."



Lastword

Your chance to enter two great competitions

A pep up for the petals



Lillian Sykes, who asked Gridline to feature her fledgling business, said: "Since the article appeared, more people know about us in readiness for next year's wedding season."

If you want your business in Gridline, email gridline@nationalgrid.com

WIN! A luxury break for two

AFTER ALL THE EXCITEMENT of Christmas and the new year, why not get away from it all with a luxury boutique hotel break?

The lucky winner of our Gridline competition can choose from one of 40 destinations, from the Highlands of Scotland to the tip of Cornwall, for their overnight stay.

Take your pick from traditional inns, grand houses and modern hotels. Some breaks include dinner, others are geared towards romance and some are right in the heart of bustling cities.

To enter, simply find the answer to the question below - the answer is in this edition - before 30 January 2015.



Q How many people worked on the refurbishment of a 9km section of a 275kV power line between Bustleholme and Oldbury in the West Midlands?

Send your answer, name and contact details to Gridline Teamwork Competition, Victoria Court, 8 Dormer Place, Leamington Spa, Warwickshire CV32 5AE or email them to gridline@summersault.co.uk
Closing date is 30 January 2015.



Photo competition

An autumn stroll near his home in Whickham, Newcastle upon Tyne, saw John Ridley capture this stunning scene of burnished gold for our 'autumn hues' themed competition.

He said: "I'm in no way an expert photographer, but I was helped by being in a beautiful part of Plessey Woods on a glorious autumn day."



WIN!

YOUR M&S GIFTCARD

TURN OVER A NEW LEAF

Fancy a £150 kick-start to the new year? Grab your camera and send your shot on the theme 'new year, new start' to Gridline Photo Competition, Victoria Court, 8 Dormer Place,

Leamington Spa, CV32 5AE, or email to gridline@summersault.co.uk including your name, address and phone number. The closing date for entries is 30 January 2015.

COMPETITION TERMS AND CONDITIONS

LUXURY BREAK: The winner will be the first entrant selected at random who correctly identifies the answer (to be featured in the next edition) and who is a National Grid grantor at the time of the draw. The editor's decision is final and no correspondence will be entered into. Gridline reserves the right to change the prize without prior notice. The prize is not transferable and cannot be exchanged for cash. The closing date is 30 January 2015.

PHOTO: The winning image will be the one judged to be the most visually appealing, original and relevant to the theme and will feature in the next edition. The winner must be a National Grid grantor. The editor's decision is final and no correspondence will be entered into. Gridline reserves the right to change the prize without prior notice. The prize is not transferable and cannot be exchanged for cash. The closing date is 30 January 2015. Prints cannot be returned.

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