

Green Thinking Takes the Spotlight at Epsom Picturehouse

17 June 2025



Cinema-goers in Epsom are being invited to watch, reflect, and act, as a national eco-film initiative gains local traction.

A new strand of community-focused cinema, “Green Screen,” has arrived at Epsom Picturehouse, offering audiences more than just a night at the movies. Instead, it aims to foster conversation and local action around the pressing issue of climate change.

Following its Epsom debut on Earth Day earlier this year — hosted by The Woodland Trust and focusing on the conservation of Langley Vale Wood — the next Green Screen event is set for **Wednesday 9th July 2025 at 8pm**, this time in partnership with **Extinction Rebellion Epsom & Ewell**.

The evening features three short films tackling different aspects of the climate crisis. First up is *#ClimateScam?* (40 mins), a documentary from Cornwall Climate Care which addresses climate change denial and misinformation. It’s followed by *Climate Anxiety* (17 mins), a film from Cambridge Movie Makers exploring the psychological toll of environmental collapse. Finally, *Plan Z: From Lab Coats to Handcuffs* (23 mins), produced by A2Y Productions, tells the story of scientists who risk their careers and freedom by engaging in direct environmental activism.

But it’s not all on-screen. After the screenings, the audience will be invited to stay for a 40-minute panel discussion and Q&A featuring local voices — a doctor, a scientist, an engineer, and a community organiser — all bringing their perspectives to the urgent environmental questions raised by the films.

Joe Stroud of Epsom Picturehouse said:

“We’re proud to see Green Screen take root in Epsom. It’s a strand that thrives when communities take ownership — the films are the catalyst, but it’s the community that brings together their perspectives, expertise, and passion.”

The Green Screen series is a nationwide initiative by Picturehouse Cinemas, transforming theatres into spaces of environmental learning and grassroots conversation. Events across the UK have seen audiences inspired to take local action, supported by partnerships with schools, charities, businesses, and environmental organisations.

True to its ethos, the Epsom screening will extend the invitation to connect beyond the credits. Attendees are encouraged to continue conversations in the Picturehouse’s meeting space over a free tea or filter coffee — if they bring a reusable cup.

Extinction Rebellion Epsom & Ewell, the local host for the July event, is part of the global climate action movement and is active in local campaigning and awareness-raising through non-violent action and community engagement.

Epsom Picturehouse itself is a relatively new addition to the town, having opened in June 2024. Located in Epsom Square, the six-screen venue blends modern programming with vintage touches and a strong focus on community. Its café-bar offers a menu of pizzas, toasties, cakes and drinks, helping turn cinema visits into a more social, immersive experience.

Anyone interested in organising a future Green Screen event in Epsom is encouraged to contact the venue at **epsom.marketing@picturehouses.co.uk**.

For more information about the 9th July event, readers can contact Warren Bunce of Extinction Rebellion Epsom & Ewell on **07539 069659** or by email at **epsomewell@extinctionrebellion.uk**.

Smarter tickets would boost bus travel

17 June 2025



Public transport in Southern England is struggling, not just because of cost or convenience, but because it has failed to keep up with the digital age, according to a new study from the University of Surrey.

In a study published in Public Transport, researchers simulated improvements in areas like payment convenience and real-time service updates. The study found that these tech-driven changes could boost bus ridership by over 30%.

Researchers have found that simple innovations, such as easy payment systems, e-ticketing, and mobile applications, can transform public transport, boost ridership, and improve passenger satisfaction.

The study employed a novel analytical approach, Machine Learning Influence Flow Analysis (MIFA), to understand the attitudes and behaviours of bus passengers in Southern England. The team also analysed detailed survey data, which helped them identify the key factors that influence whether people choose the bus over their private cars. These factors where: addressing issues around payment convenience and real-time information can make buses far more appealing.

Dr Wolfgang Garn, one of the authors of the study and Associate Professor in Analytics at the University of Surrey, said:

“We discovered that passengers want a seamless, hassle-free experience. If paying for a bus journey feels complicated or outdated, people are more likely to opt for driving instead. By introducing smart ticketing and contactless payments, alongside mobile apps that provide real-time updates, we can not only make bus travel easier but also more attractive. This isn’t just about technology, it’s about fundamentally changing how people view public transport.”

The study used advanced machine learning methods, including neural networks and random forests, to create predictive models from survey responses. These models enabled the researchers to identify the factors that most strongly influence bus usage decisions. By simulating improvements in passenger sentiment, such as increased satisfaction with payment methods, the MIFA framework can predict how these changes may alter people’s willingness to use buses. The results suggest that these technological enhancements could increase bus ridership by over 30%.

The findings also highlight several critical issues that undermine bus usage, including inconvenient payment processes, a lack of clear information about bus routes and fares, and concerns about reliability and security. The research recommends practical solutions such as integrated smartcard payment systems, real-time travel apps, and expanded bus lanes to reduce journey times. Together, these measures can create a public transport system that competes with the convenience of private cars.

Dr Garn continued:

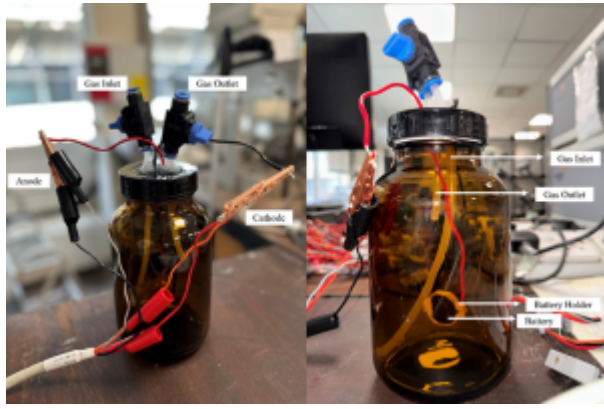
“Integrated ticketing is an option that needs to be further explored. It allows passengers to travel across different public transport modes using a single ticket or system, typically a smart card, for their entire journey. This means a traveller can switch between buses, trains, trams, and other modes of transport without needing to purchase multiple tickets or navigate different payment systems – an issue that arises when governmental policies do not sufficiently guide multiple private bus transport companies. A related study I worked on demonstrated that increased frequency, low fares, and an improved bus network significantly boost bus ridership.

The future of bus travel in Southern England depends on embracing digital convenience and improving the passenger experience. With smart payments and better information at the heart of this transformation, buses can become the preferred mode of travel for many, not the last resort.”

Image credit: Geoff Charles, National Library of Wales. Public domain

Surrey battery leads

17 June 2025



Scientists at the University of Surrey have made a breakthrough in eco-friendly batteries that not only store more energy but could also help tackle greenhouse gas emissions. Lithium-CO₂ ‘breathing’ batteries release power while capturing carbon dioxide, offering a greener alternative that may one day outperform today’s lithium-ion batteries.

Until now, Lithium-CO₂ batteries have faced setbacks in efficiency – wearing out quickly, failing to recharge and relying on expensive rare materials such as platinum. However, researchers from Surrey have found a way to overcome these issues by using a low-cost catalyst called caesium phosphomolybdate (CPM). Using computer modelling and lab experiments, tests showed this simple change allowed the battery to store significantly more energy, charge with far less power and run for over 100 cycles.

The study, published in *Advanced Science*, marks a promising step toward real-world applications. If commercialised, these batteries could help cut emissions from vehicles and industrial sources – and scientists even imagine they could operate on Mars, where the atmosphere is 95% CO₂.

Dr Siddharth Gadkari, Lecturer in Chemical Process Engineering at the University of Surrey, and corresponding author of the study, said:

“There’s a growing need for energy storage solutions that support our push toward renewable power while also tackling the growing threat of climate change. Our work on lithium-CO₂ batteries is a potential game-changer in making that vision a reality.

“One of the biggest challenges with these batteries is something called ‘overpotential’ – the extra energy needed to get the reaction going. You can think of it like cycling uphill before you can coast. What we’ve shown is that CPM flattens that hill, meaning the battery loses far less energy during each charge and discharge.”

To understand why the CPM worked so well, teams from Surrey’s School of Chemistry and Chemical Engineering and the Advanced Technology Institute used two approaches. First, they dismantled the battery after charging and discharging to study the chemical changes inside. These post-mortem tests found that lithium carbonate, the compound formed when the battery absorbs CO₂, could be reliably built up and removed – an essential feature for long-term use.

They then turned to computer modelling using density functional theory (DFT), which allows researchers to explore how the reactions unfold on the material surface. Results showed how the CPM’s stable, porous structure offered the ideal surface for key chemical reactions.

Dr Daniel Commandeur, Future Fellow at the University of Surrey and corresponding author of the study, said:

“What’s exciting about this discovery is that it combines strong performance with simplicity. We’ve shown that it’s possible to build efficient lithium-CO₂ batteries using affordable, scalable materials – no rare metals required. Our findings also open the door to designing even better catalysts in the future.”

The discovery opens new doors for developing even better low-cost, easy-to-make battery materials. With further research into how these catalysts interact with electrodes and electrolytes, lithium-CO₂ batteries could become a practical, scalable way to store clean energy, while helping reduce carbon in the atmosphere.

Surrey tree planting initiative surpasses halfway mark with 768,832 trees

17 June 2025



Surrey County Council has planted over 49,000 trees and hedgerows over the past year, bringing the Surrey wide total to 768,832 since 2019. This marks a significant milestone for the council, with over half of our planned 1.2 million trees by 2030 – one for every Surrey resident – now planted in the ground.

Trees provide numerous benefits including producing oxygen, absorbing carbon dioxide, regulating the water cycle, and offering habitats for wildlife. A range of community projects have also been undertaken to support our target, including:

- **Mullard Space Science Laboratory, Dorking:** Our team conducted a tree planting workshop for staff, resulting in the planting of 20 fruit trees and three young oak trees in a new orchard area.
- **Broadwater School, Waverley:** Pupils on the school's eco council learnt about the importance of trees. They planted 753 trees to create a reflection area and were supported by the community garden opposite the school.
- **Goldsworth Park Medical Centre, Woking:** As part of the NHS Forests scheme, which aims to transform green spaces within healthcare sites to improve health, wellbeing and biodiversity, 10 fruit trees were planted to create an orchard, with local community volunteers supporting.

Marisa Heath, Surrey County Council Cabinet Member for Environment, said, *"I am delighted to be making significant progress towards our goal. Trees play a vital role in enhancing the appearance of Surrey's green spaces, while also strengthening our climate resilience."*

"We couldn't do this alone, so I thank all the partners, communities, and residents who support this initiative. I encourage you to continue to do so to achieve our target for the benefit of our communities and future generations to come."

Community groups, charities, schools, parish councils, and businesses can register to be involved in the next planting season this winter. To find out more and to register your interest, visit our **tree planting website**.



Supporting Bees and Pollinators in Your Epsom and Ewell Garden

17 June 2025



Expert Advice on Supporting Bees and Pollinators in Your Epsom and Ewell Garden

Epsom and Ewell residents are being offered expert advice on how to make their gardens more welcoming for bees and other vital pollinators, thanks to insights from local academics.

Will Wilkinson and Dr Jorge Gutierrez Merino, both from the University of Surrey, have shared practical tips for nurturing these important species. Mr Wilkinson is a lecturer and leads The Beekeeping Project at the university, while Dr Gutierrez Merino is a senior lecturer.

Their advice highlights that while honeybees are important, it's crucial to support the many other pollinator species that are often more vulnerable.

Key recommendations for local gardeners include:

- **Recognise the bigger picture:** While honeybees are “kept species,” conservation efforts should also focus on other less conspicuous pollinators vital to our food web, many of which are more at risk.
- **Plant native and heritage varieties:** Opt for native plant species and traditional heritage varieties in your garden. Not all modern plants produce the quantity of pollen and nectar that pollinators require.
- **Ensure year-round food sources:** Aim for a diverse range of plants that flower across different seasons, including trees, to provide a continuous supply of food for pollinators.
- **Create a “rough patch”:** Leaving a corner of your garden unkempt, perhaps with a pile of old sticks, allows it to overgrow. This helps retain moisture and creates a humid microclimate beneficial for various invertebrates.
- **Consider #NoMowMay:** Avoid mowing your lawn throughout May. This allows native plants to flower and provides a crucial habitat for insects to thrive.
- **Review pet treatments:** If your pet regularly receives flea or worm treatments, discuss a risk-based approach with your vet instead of monthly preventative applications. Residues from some spot-on treatments have been detected in UK habitats and can negatively affect invertebrate survival.

The Beekeeping Project at the University of Surrey

The advice stems from work connected to The Beekeeping Project at the University of Surrey. Led by Will Wilkinson and funded by the Student-Staff Partnership Project and Forever Surrey, the initiative provides students, staff, and the wider university community with opportunities to learn about beekeeping, the environment, and develop new skills. It also aims to support student experience and mental health.

The project has fostered interdisciplinary research, including studies into the beehive microbiome as an indicator of honeybee health, led by PhD student Kerry Barnard and Dr Jorge Gutierrez-Merino. This research investigates how bacterial communities within the hive correlate with the health and disease status of bees and other pollinators.

Through workshops, teaching materials, and practical experience, The Beekeeping Project has encouraged discussion and shared knowledge about bees, gardens, and nature, emphasising the importance of all bee species for biodiversity, ecology, and sustainability – principles central to the University of Surrey's ethos.

Residents interested in learning more can note that Will Wilkinson and Dr Jorge Gutierrez Merino are available for interview by contacting mediarelations@surrey.ac.uk.

Mole Valley Solar farm decision

17 June 2025



The biggest possible solar farm was before Mole Valley District Council last week with councillors voting to reject the eco energy project – despite warnings they could lose taxpayers hundreds of thousands of pounds on appeal.

Plans for a 55 hectare solar farm in Cobham Road in Fetcham, large enough to power about one third of all the homes in the borough, came before the council’s development management committee on April 23.

Councillors narrowly voted seven to five with one abstention to refuse the 49.5 megawatts plant arguing it was an inappropriate use of green belt land and too close to ancient woodland.

The decision went against the advice of officers who said Mole Valley’s decision would likely be overturned on appeal – and the council charged costs

Cllr Abhiram Magesh (Liberal Democrat; Mickleham, Westcott & Okewood) said: “It will end up costing the council hundreds of thousands of pounds.

“It will affect the council’s balance budget.”

He said decisions like this were “not defensible by the legal material planning consideration” and that councillors needed to use vote with their brains, “not with your heart “

“What we can be considering, is the economic impact and the financial impact to not only the wider council but the area.”

The developers, Ethical Power, had argued there was an “overriding” case that delivering renewable energy outweighed the “modest impacts” and that they were “proud to bring forward the project”.

Their spokesperson added that it represented a “unique opportunity” to “tackle climate change in Mole Valley” by contributing to energy independence and clean power.

Had the power plant been any larger it would have been classified as a nationally significant project requiring government sign off, the meeting heard.

Others challenged the environmental benefits of green energy at the expensive of locally grown food and argued that the 40 year proposed life span of the site was anything but temporary.

Cllr Simon Budd (Conservative; Brockham, Betchworth, Buckland Box Hill & Headley) said: “The land that you are covering up, It’s good quality land that grows food.

“At the moment the food is grown in Fetcham and its sold in Fetcham in a farmers shop in Fetcham, you’ve got zero miles, you’ve got grain that goes off to make bread, fantastic zero miles on it.

“If you cover up land in Fetcham people have still got to eat so you’ve got to import grain.

He added: “I feel very strongly about turning what is good agricultural land into what is basically you are ruining the countryside you really are ruining it.

“The gain of a little bit of electric is not worth the loss of this land.”

On the Buses – Surrey going Green

17 June 2025



Following a successful bid for funding to the Department for Transport, Surrey County Council has been awarded an additional £1.7m for 12 new zero emission buses. This follows a previous allocation in 2024, taking Surrey’s total provision to over £5 million and 31 new buses in total.

Along with the 34 hydrogen buses already operating across the county, and a further 23 coming into service this Summer, this will see 88 zero emission buses operating on Surrey’s roads.

The new fully accessible vehicles use green hydrogen and have a range of up to 600 miles. They offer a smooth, quiet ride with free Wi-Fi, charging points and social seating on board.

Matt Furniss, Cabinet Member for Transport, Infrastructure and Growth at Surrey County Council said, *“I’m delighted that Surrey will benefit from this extra funding which will help us to build upon our own significant investment in providing cleaner buses.*

“Introducing these buses to our fleet is expected to deliver an estimated carbon saving of c112,000 tonnes over the life of the buses, which is great news for Surrey residents and for everyone else travelling in and out of our county.

“We’ve also invested £6.3m in more ultra-low and zero emission community transport minibuses, £9m in bus priority measures to ensure Surrey buses turn up on time, and £1.4m in improving information for passengers at bus stops.

“Our Surrey LINK card gives young people half-price bus travel and we’ve expanded our on-demand Surrey Connect bus services to cover areas where there are limited fixed bus routes, giving more options to travel by bus for all residents right across Surrey, particularly in our rural areas.”

Richard Telling, Managing Director of Falcon Buses said, *“Through the partnership working with Surrey County Council (SCC), who have been awarded Department for Transport (DfT) ZEBRA 2 funding, we are now enhancing our roll out of zero Emission buses, introducing 21 electric buses into our fleet.*

“Financial investment from Falcon Buses, together with SCC and DfT has enabled us to place orders with Alexander Dennis for the supply of their brand new Enviro 200 EV next generation bus and we will see electric buses operating on a number of our services from Spring 2026. Exciting times are ahead for Falcon operating new technology with electric buses, and we look forward to our customers coming on the journey with us.”

Simon Rowland, CEO of White Bus said, *“We are incredibly excited about our new electric vehicle fleet coming later this year. Not only is White Bus providing greener, cleaner vehicles, but also giving our passengers the additional comfort of quieter vehicles. Our 446 and 555 will be the first routes to use the new Yutong E10s, and they will be branded in the green Flightline livery as part of other service improvements in partnership with Surrey County Council and Heathrow. Our thanks to DfT and Surrey County Council for their support in helping White Bus make the transition to a greener future.”*

Related report:

£12 million bus boost for Surrey

Image: 465 Enviro Bus in Dorking High St: Arriva436 Creative Commons Attribution 3.0 Unported license

Surrey in race to capture carbon

17 June 2025



A unique carbon capture technology developed by researchers at the University of Surrey could offer a more cost-effective way to remove carbon dioxide (CO₂) from the air and turn it into clean, synthetic fuel.

A study published in Applied Energy demonstrated that the Dual-Function Material (DFM) process – which combines carbon capture and conversion – could match or outperform more established industry methods. Under optimal conditions, it was shown to remove carbon at a cost of US\$740 per tonne, with the potential to drop below \$400 as materials improve.

Dr Michael Short, Associate Professor of Process Systems Engineering at the University of Surrey and lead author of the study, said:

“For the first time, we’ve been able to demonstrate it can be financially competitive to use DFMs for direct air capture (DAC) – all the while creating clean fuel like methane in the process.

“Using green hydrogen from renewable electricity and carbon from the atmosphere, our system can help to replace fossil feedstocks in sectors like steel manufacturing. If a steel mill uses this fuel, it could effectively have zero net emissions – offering a sustainable path to decarbonise industries that are otherwise hard to electrify.”

Using superstructure optimisation – an advanced modelling technique – the team tested a wide range of configurations to identify the most cost-effective design for capturing 10,000 tonnes of CO₂ per year – a scale comparable to other commercial systems.

With further improvements in material performance and catalyst cost, researchers suggest it could hold promise for large-scale deployment and can be integrated with existing industry infrastructure.

Dr Melis Duyar, Associate Professor in Chemical and Process Engineering at the University of Surrey, said:

“Recycling carbon in this way is a powerful idea, with potential to create many new value chains and enable energy

independence by embedding renewable energy into the production of conventional fuels and chemicals.”

The Intergovernmental Panel on Climate Change (IPCC) warns that limiting global warming to 1.5°C will require not only cutting emissions but also removing billions of tonnes of CO₂ from the atmosphere this century.

In the lead up to Net Zero target deadlines, the technology offers a promising and economically viable route to help achieve that goal – while helping us to reduce overreliance on fossil fuels.

Thames Water hopes £37m investment will end record sewer flooding

17 June 2025



Thames Water has said it will spend £37m upgrading its Mole Valley network raising hopes it could spell the end of homes, gardens and rivers being flooded with sewage waste.

The private utility company came in for heavy criticism for the “damage it has inflicted” despite huge profits and shareholder payouts while its pipe network falls into disrepair during the latest scrutiny committee meeting at Mole Valley District Council.

However, it hopes investment projects in Dorking, Earlswood, and Horley will increase its ability to manage storm flows, treat more waste water, and prevent “effluent” flooding rivers and waterways.

The investment was welcomed as a step in the right direction but many at the meeting aired their disappointment with the firm for letting the situation get this bad.

Last year, Thames Water spent 13,101 hours pumping sewage into the River Mole and its tributaries according to new government data seen by the MP – an increase of 10.9 per cent despite there being less rain.

Speaking after the meeting, the Dorking and Horley MP, Chris Coghlan, described the record as “simply unacceptable” but has since had assurances from Thames Water and environmental regulators that “long overdue” upgrades were on the way

He said: “For years, the entire water industry has been poorly managed and woefully under-regulated.

“To expect hard-pressed customers to now pick up the tab for 35 years of under-investment by Thames Water, while the company continues to flood my constituents’ homes and gardens with disgusting sewage is shocking.

“The Government and Ofwat have a duty to hold the water companies to account”, he said, adding that the regulator needed to be replaced with a body that would “will make Thames water pay up for the damage it has inflicted.”

In Dorking, Thames Water is putting £16m into new storm tanks to treat incoming sewage and reduce dumping of untreated waste.

At its Earlswood site, just outside Mole Valley, it will increase treatment volumes from 340 to 440 litres per second, helping to prevent effluent going into the river – and what does will be of a higher quality.

Horley will benefit from upgrades to improve performance in wet weather.

Councillor Stephen Cooksey, leader of Mole Valley District Council told the meeting: “The question that flows through my mind is, although you can’t answer it tonight, is how as a responsible company you’ve allowed your infrastructure to get into such a dreadful condition?”

Thames Water’s Alice Keeping described the £37m as “a substantial amount of money that we are going to invest going forward”.

A Thames Water spokesperson said: “In 2024 parts of our region experienced some of the wettest months in 250 years. This overwhelmed our sewer network which resulted in diluted wastewater being released into rivers. While all storm discharges are unacceptable, the sewage systems were designed in this way to prevent sewage backing up into people’s homes.

“Over the next five years we will deliver a record amount of investment across our network.

“We continue to execute our plans to upgrade over 250 of our storm overflows to reduce the number of storm discharges including at our sites in Crawley and Horley.

Esher Mill Road overflow sewage site (image Chris Caulfield)

Surrey Uni leads microbe recycling of lithium batteries

17 June 2025



A microbial electrochemical technology capable of recovering 90-95% of lithium from spent lithium-ion batteries has been developed by scientists at the University of Surrey.

The breakthrough offers a more sustainable and cost-effective alternative to conventional recovery methods and could be expanded to reclaim other valuable battery metals, like cobalt.

Funded by the Biotechnology and Biological Sciences Research Council (BBSRC), the BioElectrochemical Lithium rEcoVErY (BELIEVE) project set out to tackle one of the biggest challenges in lithium-ion battery recycling - reducing the environmental and economic costs.

Professor Claudio Avignone Rossa, Professor of Systems Microbiology at the University of Surrey and principal investigator on the project, said:

“Lithium-ion batteries power so much of our modern technology, from phones to electric vehicles, but current recycling processes remain energy-intensive, costly and inefficient. Our goal was to develop a bioelectrochemical system (BES) that uses microbial electrochemical technology to extract high-purity lithium from used batteries - which is currently very difficult to do.”

Traditional methods recover small amounts of lithium, sometimes as little as 5%, while more advanced techniques achieve higher yields but rely on corrosive chemicals.

Professor Jhuma Sadhukhan, Professor of Engineering and Sustainability at the University of Surrey and co-lead on the project said:

“This project is timely due to stringent legislation for material security, particularly tech-metals like lithium. With this respect, extraction-precipitation, electrosynthesis and crystallisation have been tried to recover lithium from brines; however, the methods have posed specific challenges, including low recovery of lithium compounds.

“Biotechnology-based biorefining is needed to close the LIB loop and thereby improve product grades and recovery rates, process robustness, social justice, economic returns, health, safety, environment and legislation. In this research, we optimised a biological system to recover high purity lithium from industrial black mass, a used lithium-ion battery material after thermal and mechanical processing, separating aluminium and iron.”

Dr Siddharth Gadkari, Lecturer in Chemical Engineering at the University of Surrey and co-lead on the project, said:

“By harnessing specially selected microorganisms to transfer electrons and extract lithium, we have developed a cleaner, more sustainable approach that dramatically reduces reliance on harmful chemicals.

“Our next steps will focus on proposals to expand the technology to recover and separate all valuable metals from batteries, including high-value cobalt, nickel and manganese. While challenging, this is a crucial step toward establishing a truly circular battery economy.”

Developing a scalable process that efficiently recovers lithium, cobalt and other valuable metals will not only reduce waste but also lessen dependence on environmentally damaging mining practices.

It also closely aligns with EU Green Deal 2020 regulations, which aim for a 65% recycling efficiency for lithium-ion batteries and a 70% material recovery rate for lithium by 2030. Similar regulations are anticipated in the UK, underscoring the significance of the BELIEVE project’s contributions to sustainable technology and resource management.

The team now plans to put forward new proposes to explore how they can recover all metals from lithium-ion batteries.

Surrey company wins award for solar installation at Ewell's Bourne Hall

17 June 2025



Ewell's largest landmark, **Bourne Hall**, is known for its distinctive modernist architecture and striking glass dome, making it a uniquely challenging site for the integration of renewable technology. A new solar installation, commissioned by **Epsom & Ewell Borough Council** to reduce carbon emissions and lower energy costs, has since earned **Titan Eco** the **Small Scale Project (<£250k) Award** at the **London Energy Efficiency Regional Awards 2025**.

Cllr **Liz Frost** (RA Woodocote and Langley), Chair of the Council's Environment Committee, described it as:

"Part of a series of works that will make this picturesque and historical landmark more sustainable for future generations."

Key outcomes:

- ~45,000 kWh generated annually
- Estimated £15,000 yearly savings
- Over 9 tonnes of CO₂ saved each year

Surrey-based **Titan Eco** delivered the installation in collaboration with **WC Evans & Sons Ltd**, who designed and installed the bespoke steel framework supporting **116 DMEGC all-black bifacial solar panels**. As Titan Eco's preferred supplier, **DMEGC** is known for the consistent quality of its panels and its transparent, responsibly sourced supply chain – aligning with Titan Eco's commitment to ethical procurement.

Sam Tilley, Managing Director of Titan Eco, said:

"Bourne Hall is a great example of how solar can be integrated into a historic site without compromising its character... Knowing the system is in place and making a real difference is particularly meaningful."

Titan Eco has also delivered solar installations at several other notable community sites, including the **Rainbow Leisure Centre**, **Epsom Playhouse**, **St Giles & St George's Church**, and **Ashted Peace Memorial Hall** – demonstrating an ongoing commitment to supporting public and community buildings on their journey to net zero.

Tita Eco

Related report:

Epsom and Ewell's solar powered spaceship

Surrey leads lateral thinking about vertical farming

17 June 2025



Can vertical farming be the key to improving and safeguarding the United Kingdom's food system? This is the central question behind a new research project led by the University that has been awarded £1.4 million by UK Research and Innovation (UKRI).

The Vertical Farming to Improve UK Food System Resilience (VF-UKFSR) project will investigate how vertical farming can improve the country's supply of nutritious leafy greens, essential for a healthy diet.

Vertical farming is a method of growing crops in stacked layers, often indoors, using controlled environments. Unlike traditional farming, it doesn't rely on soil or natural sunlight. It uses soilless techniques and artificial lighting to create optimal conditions for plant growth. This allows crops to be grown year-round, regardless of weather conditions and makes more efficient use of space and resources.

Dr Zoe M Harris, project lead from the University of Surrey's Centre for Environment and Sustainability, said:

"Our project is keen to explore how vertical farming can provide local, diverse, and culturally appropriate food, given its potential to grow a wide variety of crops. So far, there's been little in-depth analysis of the risks to our country's leafy greens supply nor a thorough examination of the benefits and trade-offs vertical farming could bring to the UK's food system. Thanks to this grant from UKRI, we're excited to change that and create a clear roadmap to unlock this potential on a larger scale."

The research team will work closely with farmers, industry, government and the community to make sure that the outputs of the project focus on real-life and immediate benefits.

The core team is made up of whole-system, environmental and social scientists, UK Urban AgriTech (UKUAT) and five farm partners – Flex Farming, Innovation Agritech Group, Farm Urban, GrowPura, and LettUs Grow.

Dr Lada Timotijevic from the University of Surrey said:

"Our research is all about identifying and understanding the risks to our food system and seeing how vertical farming can help tackle these challenges. We want to create tools that make it easy to see the impact of expanding vertical farming on considerations including food supply, land use, and the environment, so we can make smart decisions for the future.

"We're also focused on understanding the public's perceptions of vertical farming and the social conditions needed for vertical farming to succeed, as well as on working closely with farmers, industry, and policymakers to build a roadmap that supports its growth across the UK."

The project's leadership team consists of:

- University of Surrey: Dr Zoe M Harris, Dr Lada Timotijevic, Dr Lirong Liu, Dr James Suckling, Dr Damiete Emmanuel-Yusuf
- University of Aberdeen: Professor Astley Hastings
- University of Sussex: Dr Alexandra Penn
- UKUAT: Mark Horler

Image: Vertical farm. Credit ifarm.fi Creative Commons Attribution-Share Alike 4.0 International

Surrey County new land management framework

17 June 2025



Surrey County Council has launched a new Land Management Framework, setting out best practice guidelines for managing its own land as well as striving to inspire other landowners and stakeholders to adopt and deliver similar approaches. The new framework aims to ensure Surrey's countryside is managed in a way that maximises its ecological, educational, social and economic value for the benefit of generations to come.

Like other counties, Surrey's natural environment is under unprecedented pressure from climate change, biodiversity loss, and increasing demands on land use. The new framework provides principles and policies to guide evidence-based decisions, manage risks, and seize opportunities.

The county council owns and manages 10,000 acres of Surrey's countryside and has a duty to manage its own land responsibly and sustainably. By implementing the new Land Management Framework, Surrey County Council will lead by example, inspiring other landowners and stakeholders to adopt sustainable land management practices.

Marisa Heath, Surrey County Council Cabinet Member for the Environment comments: *“The council’s ambition is to act dynamically to ensure the future sustainability of our land-based assets, both financial and environmental, through embedding nature-based solutions, community action, and new technology into our land management and decision-making.*

“The county’s countryside and water bodies offer numerous benefits, including recreation, wellbeing, livelihoods, food production, wildlife habitats, and community cohesion.

“Our land will be more resilient to economic and environmental shocks and climate change, support growing biodiversity, and have strong local community engagement and ownership.”

Surrey’s new Land Management Framework is timely as Government has recently launched a national conversation about land use, encouraging feedback to a consultation that will inform the development of a national Land Use Framework later this year.

Read more about Surrey’s framework by visiting our website: **Land Management Framework - principles and policies - Surrey County Council.**

Guidance to consumers impacted by Heathrow Airport incident

17 June 2025



Selina Chadha, Group Director for Consumers at the UK Civil Aviation Authority, said: “Passengers are advised not to travel to Heathrow at this time and should contact their airlines for the latest flight updates. We appreciate the difficulties that travel disruption causes, and we expect airlines to take all necessary steps to support and assist their passengers during this period of disruption. The Civil Aviation Authority remains in close contact with Heathrow Airport, airlines, and the Government during this time.”

Heathrow Airport is closed today due to a fire at a nearby electrical substation, affecting the supply of power to its terminals. Unfortunately, this means that today’s flights to and from the airport have been cancelled. The knock-on effect may also lead to delays and further cancellations over the weekend.

Flights that had already departed that were due to land at the airport had to be diverted to other airports.

Air passenger rights

When flights are delayed and cancelled, we expect airlines to minimise the overall impact on you by keeping you informed and looking after you.

In many cases you will be protected by rights which are set out in UK legislation. The table below provides guidance on whether your flight is covered by UK legislation:

| Flight Itinerary | UK or EU Air Carrier | Non-UK / Non-EU Air Carrier |
|-------------------------|----------------------|-----------------------------|
| Departing from Heathrow | ☐ Covered | ☐ Covered |
| Arriving to Heathrow | ☐ Covered | ☐ Not Covered |

Whether these rights apply or not, we encourage airlines to do all they can to minimise the overall impact to their passengers.

Flight Cancellations

If your flight from Heathrow Airport has been cancelled

Please do not go to the airport and contact your airline for further advice.

Your airline is required to offer you the choice of a refund or find you an alternative flight (referred to as “re-routing”). Re-routing should be at the earliest opportunity or at a later date at your convenience, subject to availability.

Unfortunately, it may be challenging for airlines to offer re-routing during periods of major disruption, especially when an airport is closed at short notice. This may mean that your airline may not be able to get you to your destination as quickly as any of us would like. Nevertheless, if you still wish to get to your destination, we expect your airline to do all it can to offer you an alternative flight and keep you updated.

If your airline is unable to proactively offer you care, or offer suitable replacement flights, we expect it to promptly reimburse you for the costs you incur making your own arrangements. Make sure you keep receipts and avoid incurring excessive costs.

If your flight to Heathrow has been cancelled

We realise that being unable to travel home as planned will be concerning for you. We expect your airline to update you and advise you of your rights.

If your flight is covered by UK passenger rights legislation, your airline will be required by law to get you home and look after you while you wait by providing meals, refreshments and hotel accommodation proportionate to the length of time you are delayed.

To get you home, your airline is required to find you an alternative flight (referred to as “re-routing”). Re-routing should be at the earliest opportunity or at a later date at your convenience, subject to availability.

Unfortunately, it may be challenging for airlines to offer re-routing during periods of major disruption, especially when an airport is closed at short notice. This may mean that your airline may not be able to get you home as quickly as any of us would like. Nevertheless, we expect your airline to do all it can to offer you an alternative flight and keep you updated.

If your airline is unable to proactively offer you care, or offer suitable replacement flights, we expect it to promptly reimburse you for the costs you incur making your own arrangements. Make sure you keep receipts and avoid incurring excessive costs.

Different rights apply if your airline is not a UK or EU carrier. Please speak to your airline or check its website for more information about your rights.

Diverted flights

If your flight was diverted because it could not land at Heathrow and your flight is covered by UK passenger rights legislation, your airline should provide onward transportation (this may be by other means) to get you to Heathrow. It should also look after you and provide you with meals, refreshments and hotel accommodation while you wait, proportionate to the length of your delay.

If your airline is unable to proactively offer you care, or offer onward transportation, we expect it to promptly reimburse you for the costs you incur making your own arrangements. Make sure you keep receipts and avoid incurring excessive costs.

Different rights apply if your airline is not a UK or EU carrier. Please speak to your airline or check its website for more information about your rights.

If you are travelling on a package holiday

If you booked a package holiday, you may also benefit from additional rights, particularly if this means that your original package cannot be provided.

If flight delays or cancellations lead to your holiday being cancelled, or new arrangements are made that result in a significant change to your holiday, then your travel company must offer an alternative holiday if they can, or a refund for the full price of your package holiday.

Flight Delays

If your flight from Heathrow Airport is delayed

Your airline should look after you and provide you with meals, refreshments and hotel accommodation proportionate to the length of your delay.

If your flight to Heathrow Airport is delayed

If your flight is covered by UK passenger rights legislation, your airline should look after you and provide you with meals, refreshments and hotel accommodation proportionate to the length of your delay.

Different rights apply if your airline is not a UK or EU carrier. Please speak to your airline or check its website for more information about your rights.

Fixed sum compensation

In addition to their obligations to look after passengers, as set out above, airlines are sometimes required to provide fixed sum compensation to passengers in certain circumstances.

Although we recognise the adverse impacts these delays and cancellations will have on passengers, the disruptions directly caused by the closure of Heathrow Airport are likely to be viewed as “extraordinary circumstances”. As a result, you are unlikely to be entitled to fixed sum compensation.

Extraordinary circumstances do not affect your other entitlements to replacement flights and care set out above — these are due regardless of the cause of your delay or cancellation.

Notes

The Civil Aviation Authority’s interpretation of extraordinary circumstances is illustrative and for guidance only, rather than determinative of our view in any specific case that may arise. Each case will be context and fact specific. This does not mean that a passenger or group of passengers cannot try and claim compensation, including through the courts, if they disagree with our interpretation.

The protections set out above are based on Assimilated Regulation 261/2004 which collectively apply to all flights departing from the UK, and flights arriving into the UK on UK and EU carriers. Different rights may apply to passengers arriving on flights to the UK operated by non-EU carriers such as flights from the USA on US carriers.

Civil Aviation Authority News

Heathrow Airport. Mike McBey **CC BY 2.0**

Expanding London airports “not an environmental trade off” - Minister claims

17 June 2025



Expanding Heathrow and Gatwick is “crucial” for this government after years of people sticking “their heads in the sand” over plans for new runways at south east airports, the Secretary of State for Transport said.

Heidi Alexander made the remarks as she outlined its vision to “modernise” the aviation sector at the annual AirportsUK dinner at a time when passenger levels at the country’s airports had grown by 7 per cent – and signs indicating 2025 would be a record breaking year.

She said: “It’s clear this is a trend, not an unusual year. In fact, everything points to a record-breaking 2025 – and it’s easy to see why.

“The world has never been more interconnected. The desire for travel never stronger. Global forecasts show a near doubling of passengers and cargo in the next 20 years. So the demand is there. It’s growing. And if we don’t seize it, we not only risk being outpaced by European competitors, but we will be on the wrong side of public aspirations.”

The Government has already announced its support for a third runway at Heathrow Airport – which has put in £2.3billion to overhaul its infrastructure – and more recently said it was ‘minded to approve” a second at Gatwick.

She added: “We see airports as a crucial pillar of our plan for change. And it’s why we’ve acted, and acted quickly, across three areas – starting with expansion. It’s no secret that long ignored capacity issues in the south-east, has meant some of our major airports are now bursting at the seams.

“And yet – when it came to expansion – too many people stuck their heads in the sand. It left the industry in a perpetual holding pattern, with decisions circling around Whitehall for years, waiting for a clear signal.”

Expansion at Heathrow would be the first new full-length runway in the country for quarter of a century with the transport secretary saying her job was now to balance “economic benefits of expansion with social and environmental

commitments.”

She said this was reflected in her caveated support for Gatwick – with a “clear path for expansion” set out if certain conditions are met.

A final decision on whether to approve Gatwick’s expansion is expected to be made on October 27.

The transport secretary finished: “I will never accept the false trade off that pits growing aviation against protecting our environment. I honestly believe we can, and must, do both. And how we do that is already being answered...

“Firstly, we cannot hope for quieter, cleaner and greener flights if our most critical piece of infrastructure is stuck in the past. We must ramp up work on reducing emissions. Green flight isn’t only essential for the industry, it’s existential.”

Related reports:

“Blocks away” from airport expansions

Gatwick Airport Expansion

Report against airport expansion

Heathrow expansion reaction

Heathrow Airport. Credit Heathrow Airports Limited.

Epsom Ranks Among Surrey’s Best for Train Punctuality

17 June 2025



Epsom railway station has emerged as one of Surrey’s most reliable stations for punctuality and service, faring significantly better than many other locations across the county. Despite serving three major London terminals—Victoria, Waterloo, and London Bridge—Epsom’s train services remain relatively efficient, avoiding the severe delays and cancellations plaguing other areas.

Government Push for Greater Transparency

The government has announced plans to improve transparency in railway punctuality by introducing live data screens at major stations across the country, including in Surrey. These digital screens will display real-time statistics on train cancellations and punctuality, offering commuters a clearer picture of service reliability. Data will also be made available online.

The latest figures highlight significant differences in performance across Surrey’s rail network. While some stations suffer from frequent delays and cancellations, Epsom continues to provide a more dependable service for its passengers.

Surrey’s Worst-Offending Stations for Delays and Cancellations

Several stations in Surrey have been identified as the worst performers for punctuality and cancellations, frustrating thousands of daily commuters. At the bottom of the list is Woking, where only 72.2% of non-cancelled trains arrive ‘on time’—defined as arriving within three minutes of schedule. Just above it, Guildford fares only slightly better at 74.2%.

Other stations in the lowest 10 for punctuality include:

- **Guildford** – 74.2%
- **Horley** – 74.8%
- **Gomshall** – 74.8%
- **Haslemere** – 75.2%
- **Reigate** – 75.6%
- **Dorking (Deepdene)** – 76.4%
- **Byfleet and New Haw** – 76.6%
- **Earlswood** – 76.7%
- **Redhill** – 77%

Some of these stations also struggle with cancellations, with Earlswood topping the list, where 11.7% of all scheduled trains simply do not arrive. This is followed by Salfords (11.7%) and Horley (8.4%). The full list of worst stations for cancellations is as follows:

- **Earlswood** - 11.7%
- **Salfords** - 11.7%
- **Horley** - 8.4%
- **Kempton Park Racecourse** - 7.4%
- **Sunbury** - 7.3%
- **Upper Halliford** - 7.3%
- **Chilworth** - 6.8%
- **Redhill** - 6.6%
- **Shepperton** - 6.6%
- **Gomshall** - 6.5%

Epsom's Strong Performance

If Epsom were included in these rankings, it would rank significantly higher in reliability. The latest figures show that **87.7%** of its non-cancelled trains arrive on time or within three minutes, a notably strong performance compared to its Surrey counterparts. Additionally, the station has a low cancellation rate of just **1.6%**, offering passengers greater confidence in their daily commutes.

Natasha Grice, Director at Transport Focus, welcomed the initiative to improve the transparency of service reliability, stating: "Passengers tell us they want a reliable, on-time train service and will welcome improvements to information about the punctuality of their service and cancellations being shared more transparently. It's important that the industry uses this information to drive up performance."

Meanwhile, Woking MP Will Forster has launched a new cross-party group aimed at holding South Western Railway accountable for poor performance. "I'm disappointed but sadly not surprised Woking suffers from more delays than any other station in Surrey," he said. "My constituents in Woking, and passengers right across the South Western Railway network, deserve a fair deal as they travel by train. We should expect cheaper and more reliable services."

A Positive Outlook for Epsom Commuters

While many Surrey stations struggle with delays and cancellations, Epsom's strong performance provides a welcome relief for local commuters. The government's move to display live data at stations will allow passengers to make more informed travel choices and hold operators accountable. As the debate around rail service reliability continues, Epsom's efficiency stands out as a positive example in an otherwise challenging landscape for rail users across Surrey.