

## A force to be reckoned with

February 24, 2021



### **Arcadis, Linxon and SSE Contracting come together to power Britain's railways**

We are entering a time of great change for the railways. COVID-19 apart, the industry is on a journey to a cleaner, greener future. Network Rail is working towards achieving net zero carbon emissions by 2050 (2045 in Scotland) and delivering continual improvements to air quality.

Late last year, the owner and infrastructure manager of most of the railway network in Great Britain has become the first in the world to set the most ambitious science-based targets to limit global warming – cutting emissions which limit warming to 1.5°C.

At the heart of those ambitions, is Network Rail's proposals for 12,000 kilometres of electrification by 2050, including hydrogen and battery technology, all outlined in the Traction Decarbonisation Network Strategy.

Work is also well underway on the construction of HS2 which, once complete, will deliver low carbon journeys and cut carbon emissions from other forms of transport.

In the future, trains will be highly energy efficient and entirely powered by a grid that uses increasing amounts of energy from zero carbon sources.

With the plans and targets now in place, attention is turning to delivery; something that must be done safely, efficiently and collaboratively, with millions of passenger journeys to depend on the systems put in place.

In a unique move for the industry, and a bid to offer that one-stop solution, a powerful consortium involving **Arcadis**, **Linxon** and **SSE Contracting** has been established to power up a greener and more effective railway, delivering the HV solution as one.

Robin Tunley, **SSE Contracting's** Programme Director Major Projects, said: "A safe and reliable high voltage power supply is a vital part of the UK railways plans for a cleaner, greener future and keeping the network running safely and reliably.

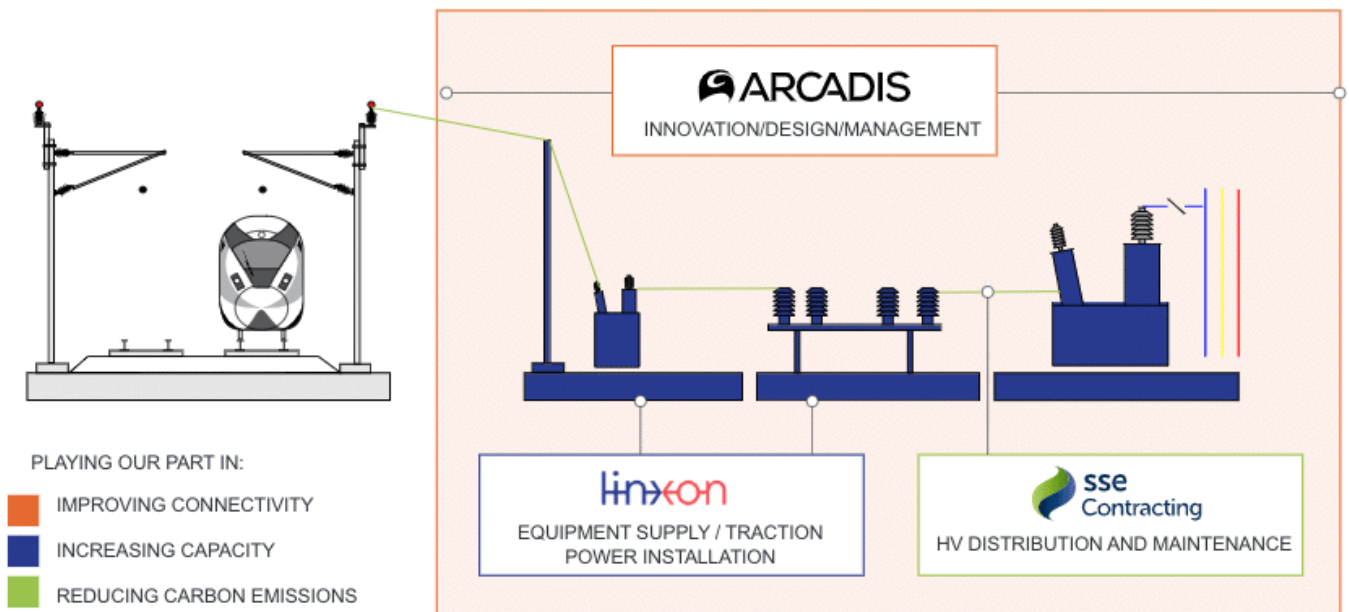
"Collectively we've seen an opportunity to come together as one to create strength in unity and a powerful consortium with complimentary skills which can only be good for the industry.

"As Arcadis, Linxon and SSE Contracting we offer different but complementary services, and we all share the same vision in playing our part to work together to power the railways in an efficient and safe manner and in doing so tackling climate change."

#### **A safe, efficient, experienced solution**

Nothing can be left to chance when it comes to powering the railways. Delays to the installation and any problems when the systems are running can be critical. So at a time when the industry is looking for reliable and efficient solutions to transform the railways, Arcadis, Linxon and SSE Contracting offers:

- A powerful consortium with complementary skills.
- Innovation and added value from three of the world's leading project management and powerful companies.
- Lower CAPEX and OPEX resulting in whole life cost reduction.
- Energy and environmental efficient technologies – significant CO<sub>2</sub> reduction (static converters).
- Rolling stock strategy – best in class interface between the infrastructure and the trains.
- World-leading and sustainable systems.
- Leading edge digital smart platforms.



### Strength in numbers

All three experienced organisations bring a strong balance of talent covering design, installation and maintenance.

- **Arcadis** has incredibly strong project design and project management capability and a history dating back to 1888, with innovation at the heart of everything it does.
- **Linxon**, part of the SNC-Lavalin and Hitachi ABB Power Grids, offer traction power design, supply and construction capability with combined innovation experience of more than 130 years.
- **SSE Contracting** has the major networks transmission and distribution capabilities, completing the collaboration with its expertise in HV installation and maintenance.

Chris Goldsmith, European Sales Director at Linxon, said: "It instantly made sense to join forces as despite the fact that individually we are strong, we complement each other and are even stronger collectively, particularly when it comes to the opportunities in the coming years. Between us we have vast Traction power and HV Distribution design, delivery and test/commission integration experience, the technical capacity and capability to deliver a proven and simple solution for the railways. We also all have very strong track records in delivering social value, employment and environmental benefits and a behavioural driven culture that adds value for internal and external customers and drives innovation."

### The opportunities

Rail is already the cleanest and greenest mode for transporting large numbers of people and goods, but as an industry we are committed to cutting carbon footprints even further.

As well as the initiatives by Network Rail, there is also the opportunities created through HS2, that recently

started the search for specialist contractors to deliver the high voltage power supply systems that will transfer electricity to the UK's new high speed rail link and enable millions of people to enjoy low carbon journeys.

The winner of the contract will be responsible for the design as well as manufacture, supply, installation, testing, commissioning and maintenance of the HV power supply systems.

Approximately 50 traction sub-stations will be built alongside the line between London and Crewe in order to deliver power from the National Grid to the trains. There is also HydroFLEX, the first-ever hydrogen-powered train, which recently ran on the UK mainline. Unlike diesel trains, hydrogen-powered trains do not emit harmful gases, instead using hydrogen and oxygen to produce electricity, water and heat.

Nick Lawton, Programme Director at [Arcadis](#), said: "There are some really exciting opportunities in the market and we hope that by working together we can offer that one-stop solution, and that through our combined skills and experience we can support our clients in ensuring the rail network continues to run safely and reliably.

"We strongly believe that as a consortium we can ensure that we can deliver the best quality and value when it comes to HV power for the railways."

Robin Tunley said: "At a time when the environment is at the top of the agenda, we will work together to create a full life VFM and carbon impact value, that can prevail on the HV distribution system.

"Together we can deploy assets to generate revenue, reduce cost price of infrastructure, contribute to net zero carbon, provide employment and upskill local communities and share additional upside where applicable."



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