

Item:
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Report to Partnership Meeting 12 November 2021

RESEARCH AND STRATEGY DELIVERY

SATE PROJECT

PURPOSE OF REPORT

To update Members on HITRANS involvement in the Innovate UK Sustainable Aviation Test Environment (SATE) Project.

PROJECT OVERVIEW

Part-funded by UK Research and Innovation (UKRI) through the Industrial Strategy Challenge Fund, the SATE project will create the UK's first operationally based, low-carbon aviation test centre at HIAL's Kirkwall Airport in the Orkney Islands. Launched as part of UKRI's Future Flight Challenge which supports the development of greener ways to fly, the project runs for an 18-month period with a budget of £3.7 million. The project launched in November 2020 and will end in April 2022.

Different types of low-carbon aircraft are being tested to identify the next generation of air services as well as the operational airport infrastructure necessary to support sustainable aviation. Addressing the challenge to improve UK regional air connectivity and helping to decarbonise the Highlands and Islands region, the innovative project will stimulate job creation and use local renewable energy, supporting Orkney's net zero ambitions.

Led by HIAL, the SATE project brings together a consortium of aviation industry specialists, local Orkney and Caithness businesses, public sector bodies and academia.

SATE's technology partners — Ampaire, ZeroAvia, Loganair, Windracers and Flarebright — are trialling a host of exciting new transport options, including low-carbon aircraft using electric, hydrogen or Sustainable Aviation Fuels (SAF) to replace conventional fossil fuels, as well as drone applications for supplying on-demand medical supplies to health centres.

Consortium members are also looking at how to implement zero-carbon airport infrastructure using green energy sources, as well as digital networking and the development of resilient communications. The socio-economic impact of new technologies and services in the region, and the skills and training needed to support them, is being assessed.

The European Marine Energy Centre (EMEC), Denchi Group, Orkney-based Cloudnet, Air Service Training, University of the Highlands and Islands, The Highlands and Islands Transport Partnership (HITRANS), Highlands and Islands Enterprise (HIE), and Orkney Islands Council complete the partnership.

As an exemplar early-adopter of other low-carbon technologies, Orkney is an ideal 'living laboratory' for testing aviation and aerospace technology. Kirkwall Airport is well suited as a test

environment location due to the variety of short routes it offers acting as a hub connecting Orkney's Island communities through its inter-island flight service.

UPDATE

HITRANS role in the project is to develop a Low Carbon Surface Access Scoping Study for Kirkwall Airport, working with stakeholders to understand infrastructure requirements and opportunities to accommodate low carbon transport to, from and around Kirkwall Airport in addition to the alternatively powered aircraft. The Scottish Government has set a target for the Highlands & Islands to be a net-zero aviation region by 2040, and part of this target will be addressing sustainable transport modes to, from and around airports to fully decarbonise the sector.

The study is building on earlier work HITRANS has commissioned on low carbon transport opportunities at remote airports, following completion of work through Interreg NPA project SPARA 2020, and an EV Strategy for the HITRANS region in 2018. The study will complement previous activities HITRANS has supported at remote airports including electric buses, electric taxis, electric bikes, car clubs and installing rapid charge points.

Urban Foresight were awarded the work following public procurement. The report is currently in draft form with an anticipated completion date for later this month.

Other notable updates in the wider SATE project include drones being used to deliver post between Kirkwall and North Ronaldsay with trials completed last month, and hybrid electric aircraft trials that took place earlier this year in Summer.

FUTURE PROJECT

HIAL is leading the SATE 2 project for the Future Flight Challenge Phase 3, which HITRANS is a partner in. The deadline for applications is 10th November and applicants should be notified of the outcome by the end of January 2022. HITRANS funding rate for SATE 2 is 100%.

RISK REGISTER

RTS Delivery

Impact – Positive

Comment – The SATE project supports several RTS objectives, particularly in the field of low carbon transport.

Policy

Impact – Positive

Comment – The SATE project contributes to policy development by helping to meet the Government target of the Highlands & Islands becoming the world's first net zero aviation region.

Financial

Impact – Positive

Budget line and value – The SATE project attracts high intervention rates, with SATE being funded at 70% and SATE 2 at 100%.

Equality

Impact – Positive

Comment – The SATE project delivers environmentally sustainable aviation and therefore helps to ensure lifeline transport options are sustainable in the long-term.

RECOMMENDATION

Members are asked to:-

1. Note the report.

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Date: 3rd November 2021