



Contribution ID: 356

Type: Oral presentation using Zoom

Tunnel Heat Recovery - Green ILC

Thursday, 28 October 2021 15:30 (20 minutes)

The drive to reduce carbon emissions and reliance on oil and gas has led to the increase in the use of renewable energy heating systems. Ground source heat pump systems are an example of these renewable systems, and tunnels as a way of connecting building heat pump systems to the energy stored in the soil and air. Thermal tunnel energy segments were designed on the Crossrail project, London, UK. This demonstrated how energy consumption as well as CO₂ emissions can be reduced by such systems. This talk will discuss the challenges and opportunities for heat recovery adoption in tunnels, including heat and ventilation interfaces, linking the tunnel heat to adjacent buildings in cost effective ways, and the potential it could provide for green energy production on major tunnelling projects such as ILC, CLIC and FCC. The context of this alongside other green tunnelling initiatives which can contribute to net zero outcomes shall also be discussed.

1st preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

2nd preferred time slot for your oral presentation

15:30-17:30 JST (8:30-10:30 CEST, 2:30-4:30 EDT, 23:30-1:30 PDT)

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Session Classification: W-2: Green ILC

Track Classification: Parallel sessions: Sustainability: Session W: Green ILC