Hey, we are Trans C O 2. We are taking on GovHack 2022. The product we want to present is the Trans C O 2 app. The goal of Trans C O 2 is to contribute to the Net zero by 20 50 emissions target. This is achieved by highlighting emission friendly forms of transport through sustainable energy behaviours, and generate visualisations which are automated for route optimisation taking into account carbon emissions, revenue and fair rates through pricing of public transport. The project integrated several datasets from different sources such as the Australian Census, A C T government, and clean energy regulator and can be used to provide greater insight to solve the multiple challenges facing not only the A C T but Australia and the world.

The product will make transport seamless with environmental incentive to make your transport greener. The Trans C O 2 website does this by approaching the uptake, C O 2 output and Pricing of the A C T’s public transport usage from two sides. The first being the side of the commuter and the second being the side of the transport planner.

Firstly, we will look at the commuter page.

The website also tracks the commuters previous emissions, expenses and time saved.

The app also allows for friendly competition between friends and family whilst incentivising the need to become greener with our everyday transport.

Another feature is the carbon offset program, which allows commuters to offset the carbon they have produced during their travels.

The user interface allows the commuter to choose the transport option based on Carbon footprint, cost and time. Real time data for fuel and public transport costs are integrated. The user can then choose to be taken to a carbon offset page where regional projects are displayed.

The planner version of the Trans C O 2 app allows the city planners to visually identify areas of need, mapping the highest Carbon emission bus routes where electric transport modes could cut down emissions.

Data from the A C T’s public transport pricing and revenue can be easily viewed and can potentially estimate costs based off previous bus usage to calculate pricing, time to pay off implemented infrastructure, transport vehicles and carbon emissions from manual inputs.

Using data from the Australian census allows the planner to view the average motor vehicle per household giving a deeper understanding of where sustainable transport methods are required.

Trans C O 2 aims to utilise this aspect to reduce the carbon emission by the optimisation of public transport.

The region’s population density has been converted into an interactive heatmap which allows us to optimize ease of travel as well as remaining carbon considerate.

This has been done by overlaying the region’s main roads and thoroughfares as well as Most efficient bus routes in separate maps, providing a visual representation of how the network will be optimised and prioritised for future upgrades and population growth.

Overall the app will help commuters and planners alike to lower carbon emissions while maintaining efficient means of transport time, pricings and convenience.

Our goal for this project was to create a green, cleaner future for the upcoming generation.

Using this system will help meet net zero by 2050, optimising the use of multiple datasets on a single interface to optimise profit while maintaining fair rates on public transport.