



TRONIOUS

Energy Transition
Accelerators
Relocatable EV Charging
Hubs

Who We Are



Jamie Duffy

Director
Co-Founder

Having over 24 years experience in the construction and railway electrification industry, coupled with his Institute of Occupational Safety and Health membership, gives Jamie the expert knowledge to lead and deliver large-scale, multidisciplinary, infrastructure projects.

Jamie is passionate about social value supply chains and establishing strong, local economic stimulus built on trust and loyalty within businesses and local communities.



Seiki Payne

Director
Co-Founder

Seiki has over two decades of project, programme and stakeholder management experience has equipped Seiki with the ability to focus on business priorities and to steer large, complex, infrastructure projects and teams to success.

Seiki is an avid electric vehicle owner with a passion for renewable energy and making a difference by ensuring his team and clients are on board and working towards a joint, unified vision in recognising that a sustainable future requires change.

Introduction



Tronius Limited was founded to offer competitive installation packages for Electric Vehicle charging solutions. The Tronius EV Charging Pods are our unique charging proposition that combines rapid deployment, go anywhere flexibility and weak or no grid EV charging.



We place data at the heart of our services and use it to bring certainty to all aspects of the solutions that we deliver.



Our ethos is to operate as a conduit for driving social value, local employment and regional economic stimulus in collaboration with SMEs community groups, organisations and enterprise initiatives.

Our Main Office Location



Dundee is a fast-growing epicenter for technologies and renewables, especially the EV sector. We chose to locate our main office in the newly established Michelin Scotland Innovation Parc (MSIP) Estate.

At MSIP the ethos was born through a partnership between Michelin, Scottish Enterprise and Dundee City Council. The concept is based on collaboration between tenants and landlord and there are a growing number of organisations present on the development.

These organisations, our own included, are selected for suitability in regard to their environmental, social value, local employment providing credentials. As such we are all given additional support and exposure to our own and wider renewables markets as well as grant funding and innovation challenge competition rounds.

<https://www.msipdundee.com/>



Mobile EV Charging Hubs

Our EV Charge Hubs are a unique product that enables flexible Electric Vehicle charging at any time through a robust containerised solution collecting a wealth of data in addition to EV charging.

- EV Charging Hub configuration / capability:
 - Electric Vehicle charging sockets up to 22kW AC (DC charger version in PoC stages)
 - Active Load Management - never overload the circuit whilst maximising the power delivered to vehicles
 - Active Phase Balancing – rarely seen technology which ensures all phases are fully utilised
 - Rapidly deployable – 3 phase commando socket for grid connected sites
 - Battery variant to allow off grid or weak grid charging
 - Real time connected data collection. This data then feeds a bespoke Roadmap Energy Transition Action Plan for each site
 - RFID Via **Spirii back office**
 - Cloud-based operation for usage and monitoring
 - Can be integrated with other fleet management systems



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Highlander Pod Version

- Proof of Concept:
 - Proof of concept development complete, prototype complete
 - Launched at COP26 Demonstrator Showcase event at the Michelin Scotland Innovation Parc (MSIP) Dundee on the 11th and 12th November 2021
 - Winners of the Edinburgh Chamber of Commerce Innovation in Business Award 2022!



US





The socket configuration can be designed to suit clients needs in terms of number on a particular side, height and spacing.

EV Hubs can be built in 6', 10', 20' and 40' containers (depending on use case and battery requirements)

However, we do wish to make sure that our configurations facilitate access for all, especially with mobility impaired persons in mind.

Socket Plate Surround



The individual sockets are made from marine grade steel, giving them a robustness that other charge points do not currently offer.

The plates for the sockets can be laser cut to include a personalised logo and other details.

These plates are installed flush to the Hub, thus providing additional protection whilst being transported, they are also sealed to be watertight in their construction.

Benefits for our clients'?

- A means to provide on/off-grid EV charging facilities in almost any environment
- Flexibility to relocate and rapidly deploy with minimal effort (20 minutes once on site)
- The benefit of being able to provide EV charging whilst awaiting grid connections
- RFID, contactless payments via contactless card or Apple Pay / Google Pay
- Roadside/Event Space advertising space that is practical and with user interaction features
- Positive “social value target KPIs” for local economic stimulus via employment
- “Try before you buy” for making key investment decisions on permanent EV infrastructure
- Strategic EV charging hubs, dedicated to your own customer base or large organisations
- Ability to support weak grids and alleviate local charging facilities during mass events

EV/e-Bike Combo

- Proof of Concept:
 - Proof of concept in development, initial stages proven that concept is possible
 - Easily integrated systems with already designed EV Hub Power and data collection technology
 - Quick turnaround on the builds (approx. 4-6 weeks, dependant on configuration and requirements)





Charging of e-bikes can be integrated into a modular locker system to ensure the e-bikes are ready for the next user or next day for the same user. An account can be set up to facilitate membership and personally rented lockers.



e-bike example



e-bike & Highlander Pod Integration

- The Highlander Pod is well suited to having a locker and charger system integrated within it
- The energy source for charging the e-bikes can be facilitated via the Pod's incoming grid supply or indeed from roof mounted solar
- Strategically placed in railway station parking and hub areas, the customers can access both facilities at the same time
- As a joint charging facility, both provide decarbonised travel enablement and "last mile" carbon reductions that will benefit cities and local communities alike
- Additional revenue streams for TOCs/Station Operators/Parking Agents will be realised via the storage and charging of e-bikes and EV charging



Tronius EV Charging Pod and e-Bike combo



In the quest to enhance the reduction in carbon emissions and the carbon footprint of commuters, Tronius and delivery partners have worked to provide the full circle solution for those who travel to work via EV 2 Train 2 e-bike 2 Workplace.



There are multiple models that can be applied to the combined charging and storage hub.



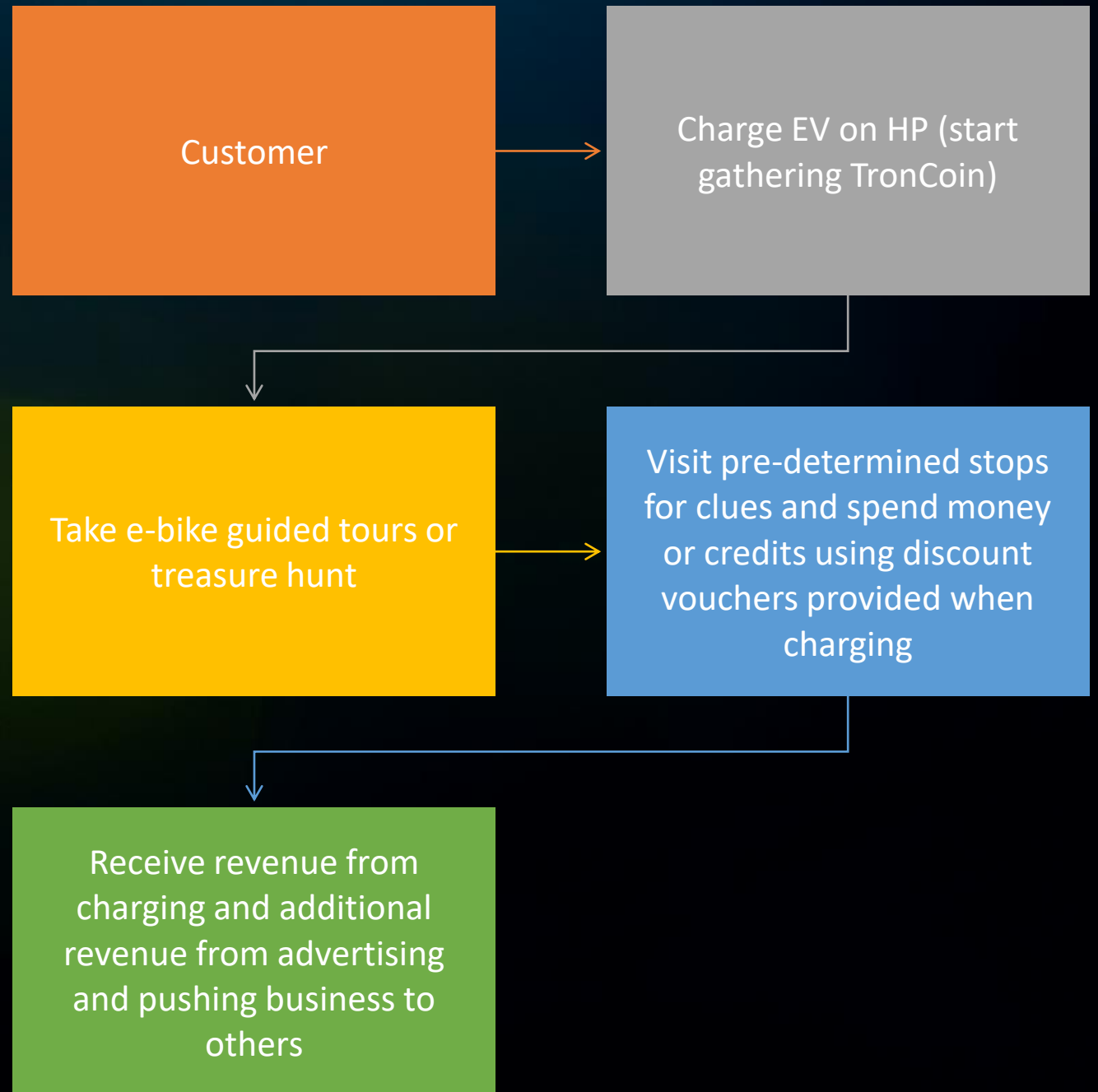
Another avenue to explore is the cycling tour application. This is where tourists and locals alike can hire e-bikes for the day and charge their EV whilst they park and cycle.



Local tours can begin from the charging hub location and have predetermined stopping and charging locations at the various local attractions and tourism sites.

EV/e-Bike Hubs

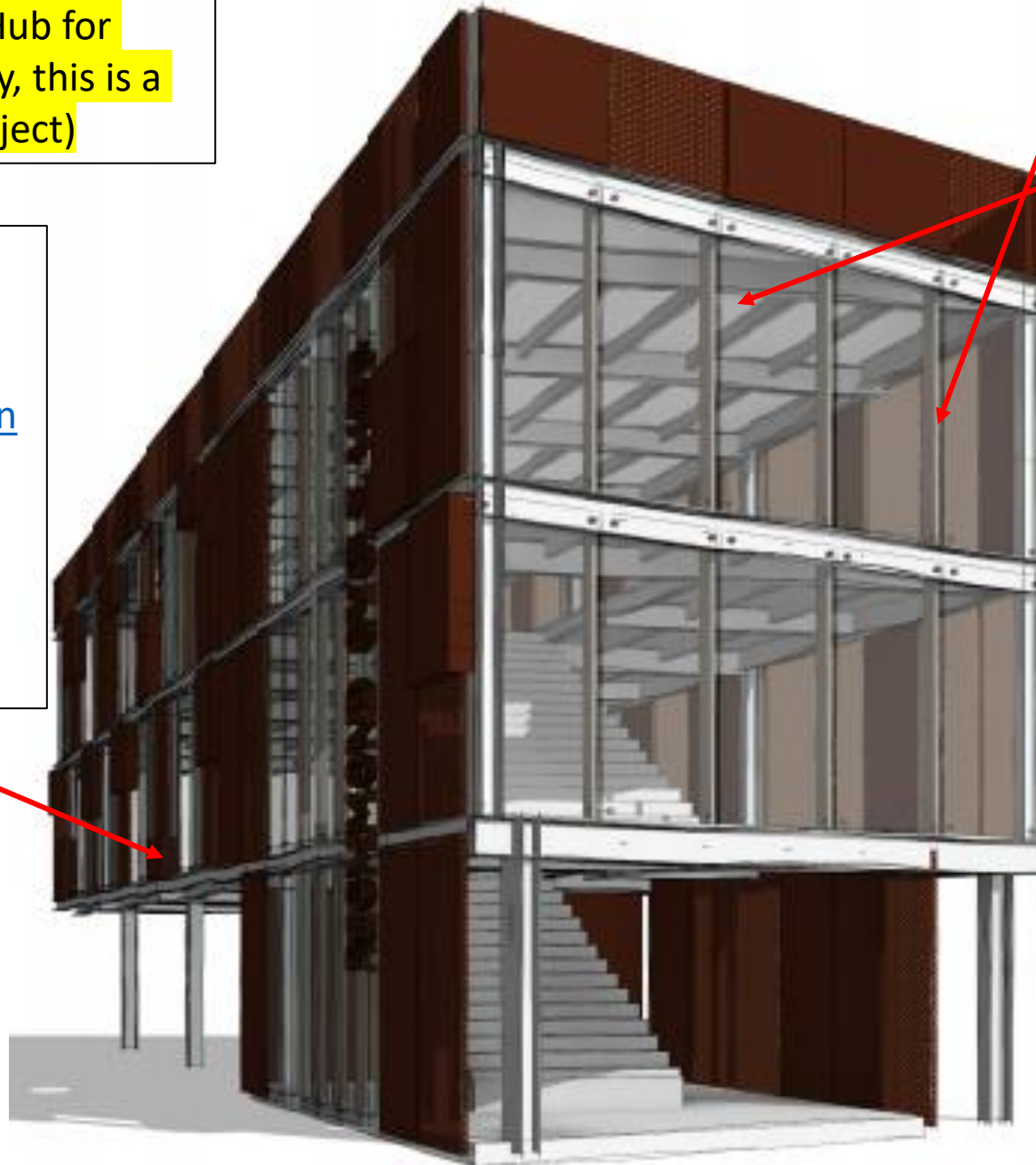
(Revenue Share Model)



Example of Railway Station Hub for Richmond Station (example only, this is a separate development project)

BPV Glass overhang to protect pedestrians and customers.
<https://agc-activeglass.com/en/sunewat/visionstripe/>

Highlander Pod EV/e-bike Charging Hub



PV Glass Panels for the roof and LED embedded glass advertising panels front wall
<https://agc-activeglass.com/en/glassiled/>

Ground source or air source heat pumps?

Rainwater harvesting storage tanks in the ground?

The benefits of working with Tronius

- Tronius are an experienced electrification, EV charge point and renewables installation contractor who work collaboratively with their clients to find the best fitting and most cost-efficient solutions that will ultimately benefit them now and well into the future.
- ✓ We can cover the whole of the UK with delivery partners
- ✓ Tronius offer a “Try B4 You Buy” option that allows our clients to test their site’s demands
- ✓ We actively promote social value aspects within all our projects
- ✓ We can provide local economic stimulus for local communities via our Charging/Eco Hubs
- ✓ Tronius can provide mobile, flexible EV charging in any location for any event
- ✓ We can provide you with additional revenue via our EV Charging Hubs and additional features