Pop-Up Metro

Creating value for light density urban freight lines

Pop-Up Metro now offers its Class 230 battery-propelled light metro trains in the United States, which are an innovative, new build from the aluminum body shell and bogies from former London Underground equipment.

- ✓ Pop-Up Metro offers a reliable, low-cost, and sustainable option allowing communities considering rail options to both **prove the concept** and **prove the market** in an expedited, economic, low-risk manner.

- ✓ Pop-Up Metro **is a Turnkey "Kit"**[1] incorporating trains, ADA complaint modular platforms, charging equipment, maintenance infrastructure, training, technical support and an operating plan **under an annual lease,** eliminating the high up-front capital commitment typically associated with light Metro passenger start-ups.



Features of the Class 230 D-Train:

- 194 passenger capacity (88 seated, 106 standees)
- Battery propulsion offers swift acceleration and a quiet ride, providing passengers a fast and comfortable journey
- Speed/Range: Max 60 MPH / 50-60 mile range per charge
- Charge time: As fast as 8-10 minutes with our optional Fast Charge system
- Fully customized design: passenger friendly, flexible interior layouts with storage for bicycles and luggage, WiFi, USB charging ports, etc.
- By accommodating bikes, creating a comfortable working environment, and providing reliable service, Pop-Up Metro trains facilitate door-to-door use of transit.
- Modular "Future-Proof" design for easy reconfiguration of power source (diesel, electric, battery, hybrid, fuel cell)
- Minimal maintenance requirements, the majority of which can be performed on site thanks to modular design

The **battery powered D-Train** has been built with green and eco-friendly systems at heart and meets the highest standards for environmental performance, beginning even before the trains are put into service.

- The battery powered trains operate as zero tail-pipe-emission vehicles, reducing emissions that are harmful to the environment and public health.
- Regenerative braking captures energy and reuses it to power the train.
- Battery packs are able to charge from any available power source including solar, wind, and other renewable sources.
- The design greatly reduces the amount of raw materials and energy needed to manufacture new trainsets: nearly 8 tons of aluminum are diverted from being scrapped by using high quality donor parts.

In the USA, Pop-Up Metro trains can be used to maximize the utility of existing light density freight lines in communities interested in rail transit options. **For less than the cost of a full feasibility study, communities can test actual ridership and evaluate the operation while jump-starting the development of rail transit corridors**.

[1] The Pop-Up Metro Kit has a US Patent Pending

In most scenarios, Pop-Up Metro would operate under a shared-use waiver from the FRA based on **temporal separation, as currently practiced on freight-passenger operations in PA, NJ, TX, CA, etc**. This allows for passenger service to operate on limited and selected portions of the general railway system under the condition that the two modes (freight and passenger) are kept absolutely separate by assignment of specific blocks of time to each mode. The RDC team includes experience with the implementation of temporal separation. Together with our modular, ADA compliant high-level platforms, Pop-Up Metro provides the ability to **execute fast implementation of the service with minimal capital investment**.

Pop-Up Metro is operating two active train-sets in **demonstration operations** at Rockhill Furnace, PA on a 1.8 mile test track on the East Broad Top Railroad.

Pop-Up Metro is now expanding beyond the demonstration operation and we are looking for opportunities in communities that combine:

1. **Mobility challenges** such as traffic congestion or financial barriers to transit investment;
2. **Willing host railroads** interested in increasing their revenue from light density freight lines; and
3. **Local sponsors** in either the **public or private sectors**.

Potential applications include:

- First and last mile **connections to existing transit** corridors, increasing access to transit in suburban, ex-urban or rural areas;
- "Park and Ride" **shuttle service** connecting remote parking areas to dense urban centers, easing traffic congestion and reducing the amount of real estate dedicated to parking in cities;
- New, **independent rail transit** services in areas unserved areas; and
- Private employee shuttle services

Pop Up Metro will provide, under circumstances ranging from a **short-term lease to an outright sale**:

- **Trains and platforms** (including design and maintenance)
- Full driver and maintenance **training**
- Support for developing **an operating plan** in compliance with FRA regulations for use of Vivarail equipment on the common railroad system, including support to obtain any necessary regulatory approvals
- Support in obtaining **public financing** where appropriate
- Ongoing **operational and technical support**

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