

Rail in Honolulu will not be Green

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The rail our city is proposing will be a public service. It will operate 20 hours per day. Each station will require electric escalators and elevators that will also operate 20 hours per day. There are no express trains. Each train will stop at every stop. Each train will have to consume electricity continuously for 20 hours.

Even if we assume rush hour morning and evening add up to 8 hours total, there is still 12 hours of non-rush hour time that the train will run continuously in both directions.

The Department of Energy data on the energy efficiencies of rail in different cities describes a range of energy consumption from very low in cities like New York to very high in cities like Cleveland. Will our proposed rail have ridership numbers like New York? Do we want Waipahu and Kapolei to look like New York?

According to the Department of Energy, only rail in cities like New York, Atlanta and Oakland, is more energy efficient than the average car. Rail in Cleveland, Philadelphia, Boston, Miami, and Chicago is less energy efficient than the average car. Here are the links to the Department of Energy data:

U.S. Department of Energy – Transportation Energy Data Book 2008

http://cta.ornl.gov/data/tedb27/Edition27_Full_Doc.pdf

Page 63. Average energy consumption of cars equals 3,512 BTUs. Measured in BTU per passenger-mile.

U.S. Department of Energy – Energy Efficiency and Renewable Energy – Fact #221

June 17, 2002. Transit Rail Energy Intensity Varies by System.

http://www1.eere.energy.gov/vehiclesandfuels/facts/favorites/fcvt_fotw221.html

Philadelphia averages 4,000 and Cleveland averages over 6,000 BTUs. Measured in BTU per passenger-mile.

It sounds counter intuitive that the average car uses less energy than rail in cities like Boston and Chicago. However, the numbers are clear. In 20 years rail will use the same amount of energy it does today. In 20 years our cars will use less energy.

As we have learned from the City engineers, rail will result in traffic congestion that is much worse than it is today. This will result in more wasted fuel.

If we are truly concerned about the carbon footprint of different types of mass transit, the proposed rail is a step in the wrong direction.

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