

Unobstructed Urban Traffic

Methods

Shift passengers from buses to light rail

Benefits

1. Reduced traffic congestion
2. Reduced atmospheric and sound pollution
3. Removed urban traffic redundancies
4. New bus routes using reallocated buses



Improving Public Perception of Canberra Light Rail



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- ABC NEWS. 2015. More Canberrans oppose light rail than support it, Unions ACT survey shows [Online]. Available: <http://www.abc.net.au/news/2015-06-19/new-survey-shows-most-canberrans-do-not-support-light-rail/6557744>

More is less

Green Light Rail

Green Materials

Methods

1. More biodegradable or recyclable materials (Brebbia, 2015)
2. New insulating materials

Benefits

1. More environmental friendly
2. Lower disposal cost
3. Lower energy consumption
4. Lower operational cost



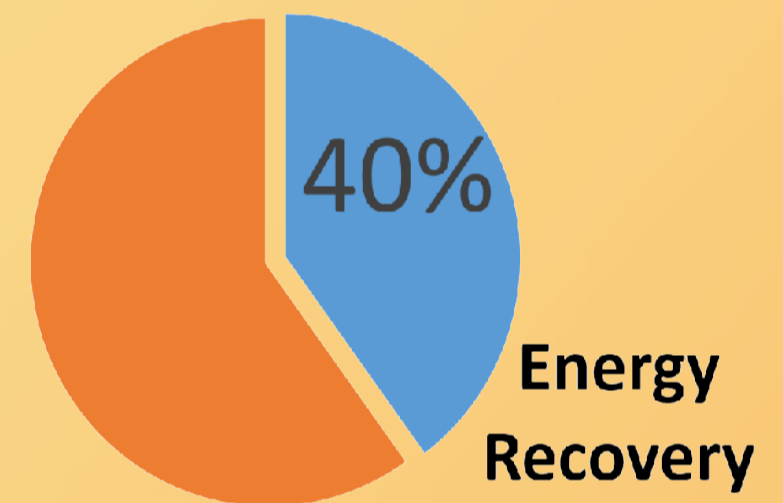
Green Energy

Methods

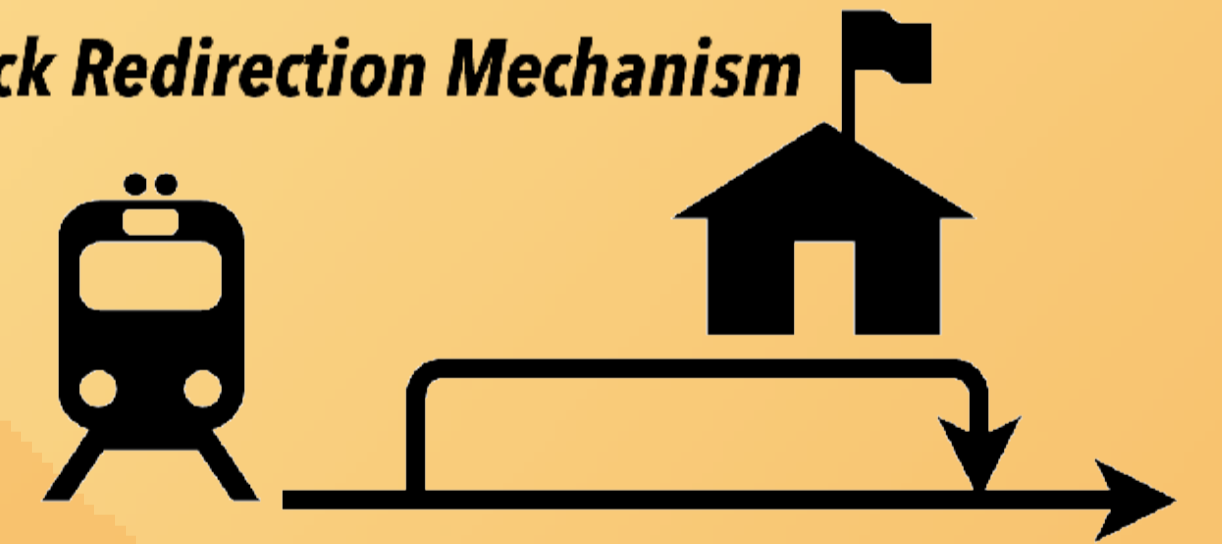
1. Powered by renewable energy supply
2. Implement propulsion system or supercapacitors (Barrero et al, 2008) for 40% energy recovery

Benefits

1. Less emission and pollution
2. Lower operational cost



Track Redirection Mechanism



More Needs, More Services

Methods

1. Alter service frequency
2. Dedicated service
3. Track redirection mechanism

Benefits

1. Reduced travel time
2. Reduced running cost
3. Increased off-peak ridership



Overview

Although Capital Metro has outlined numerous financial, social and environmental benefits from light rail use (Capital Metro, 2014), less than 40% of the public support the light rail (ABC News, 2015).

Therefore, in order to realize these benefits, the public perception of the light rail needs to be improved. The motivation for the goal was raised during Qualitative analysis done on why people utilize private rather than public transportation. It found that the major aspects of light rail that will impact public opinion are: **Speed, Price, Environmental Consideration** and **Convenience**.



Feedback Makes Great Services

More Feedback, More Improvements

Methods

1. Surveys or questionnaires
2. Online suggestion or complaint handling

Benefits

1. Targeted & effective improvements
2. Better customer experience

Less Disruption, Better Service

Uniquely Integrated Traffic System

Methods

1. Back propagation neural traffic lights networks
2. Service schedule coordinates with traffic light

Benefits

1. Reduced impacts on existing traffic
2. Reduced operation costs
3. Better energy efficiency

