Rail Transit in New Mexico
Rail Transit in New Mexico
...and Beyond!
Fuel Efficiency
Various Modes of Transportation

Unit = passenger miles per gallon fuel
Italicized number denotes passenger load

Surface modes rated at 55 MPH
## Urban service

### Maximum efficiency possible in urban service

Approximate, assumes seats filled for all vehicles plus standees for mass transit modes, see full table for details. **Maximums are mainly of theoretical interest.**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Passenger-miles per gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>2000</td>
</tr>
<tr>
<td>Trolleybus</td>
<td>750</td>
</tr>
<tr>
<td>Tesla Roadster</td>
<td>328</td>
</tr>
<tr>
<td>Diesel bus</td>
<td>280</td>
</tr>
<tr>
<td>Toyota Prius</td>
<td>240</td>
</tr>
<tr>
<td>Scooter/light motorcycle</td>
<td>150</td>
</tr>
<tr>
<td>Smart fortwo cdi</td>
<td>100</td>
</tr>
<tr>
<td>Ford Explorer</td>
<td>100</td>
</tr>
</tbody>
</table>

### Typical efficiency in urban service

Approximate, assumes 1.5 per road vehicle, 1 per motorcycle, see full table for details.

“Typical” uses vary widely; see the table, and do your own calculation based on actual or expected ridership!

<table>
<thead>
<tr>
<th>Mode</th>
<th>Passenger-miles per gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rail</td>
<td>600</td>
</tr>
<tr>
<td>Trolleybus</td>
<td>290</td>
</tr>
<tr>
<td>Tesla Roadster</td>
<td>246</td>
</tr>
<tr>
<td>Diesel bus</td>
<td>78</td>
</tr>
<tr>
<td>Scooter/light motorcycle</td>
<td>75</td>
</tr>
<tr>
<td>Smart fortwo cdi</td>
<td>74</td>
</tr>
<tr>
<td>Toyota Prius</td>
<td>72</td>
</tr>
<tr>
<td>Ford Explorer</td>
<td>21</td>
</tr>
</tbody>
</table>
### Maximum efficiency possible in long distance service

Approximate, assumes seats filled for all vehicles plus standees for mass transit modes, see full table for details. **Maximums are mainly of theoretical interest.**

<table>
<thead>
<tr>
<th>Mode</th>
<th>Passenger-miles per gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diesel-electric commuter rail with standees</td>
<td>936</td>
</tr>
<tr>
<td>Regional Electric Train</td>
<td>650</td>
</tr>
<tr>
<td>High Speed Electric Train (300 km/h)</td>
<td>630</td>
</tr>
<tr>
<td>Tesla Roadster</td>
<td>328</td>
</tr>
<tr>
<td>Transrapid maglev (400 km/h)</td>
<td>316</td>
</tr>
<tr>
<td>Highway coach</td>
<td>280</td>
</tr>
<tr>
<td>Diesel-electric commuter rail</td>
<td>260</td>
</tr>
<tr>
<td>Toyota Prius</td>
<td>238</td>
</tr>
<tr>
<td>Ford Explorer</td>
<td>150</td>
</tr>
<tr>
<td>Hovercraft</td>
<td>80</td>
</tr>
<tr>
<td>Aircraft</td>
<td>70</td>
</tr>
<tr>
<td>Helicopter</td>
<td>20</td>
</tr>
</tbody>
</table>

### Typical efficiency in long distance service

Approximate, assumes 1.5 per road vehicle, 1 per motorcycle, see full table for details. "Typical" uses vary widely; see the table, and do your own calculation based on actual or expected ridership.

<table>
<thead>
<tr>
<th>Mode</th>
<th>Passenger-miles per gallon</th>
</tr>
</thead>
<tbody>
<tr>
<td>High Speed Electric Train (300 km/h)</td>
<td>380</td>
</tr>
<tr>
<td>Tesla Roadster</td>
<td>246</td>
</tr>
<tr>
<td>Regional Electric Train</td>
<td>200</td>
</tr>
<tr>
<td>Diesel-electric commuter rail</td>
<td>200</td>
</tr>
<tr>
<td>Transrapid maglev (400 km/h)</td>
<td>190</td>
</tr>
<tr>
<td>Highway coach</td>
<td>170</td>
</tr>
<tr>
<td>Toyota Prius</td>
<td>96</td>
</tr>
<tr>
<td>Aircraft</td>
<td>50</td>
</tr>
<tr>
<td>Ford Explorer</td>
<td>44</td>
</tr>
<tr>
<td>Hovercraft</td>
<td>40</td>
</tr>
<tr>
<td>Helicopter</td>
<td>14</td>
</tr>
</tbody>
</table>
Interstate Highway System

Map created for Rails, Inc. by John Perry
Our Future Passenger Rail System

Map created for Rails, Inc. by John Perry
Clean air
Clean water
Fuel economy
Energy economy
Renewable energy
Energy self-sufficiency
Personal health and safety
Public health and safety
Wise use of land
Wise use of materials
Low infrastructure maintenance
Poverty reduction

Deficit reduction (federal, state, local, personal)
Sustainable economic development
Land use reform
Biking
Walking
Neighborhood transit
Traffic congestion reduction
Historic preservation
Business and worker productivity
Climate change control
Stress reduction
ROLL CALL

Clean air
Clean water
Fuel economy
Energy economy
Renewable energy
Energy self-sufficiency
Personal health and safety
Public health and safety
Wise use of land
Wise use of materials
Low infrastructure maintenance
Poverty reduction
Deficit reduction (federal, state, local, personal)
Sustainable economic development
Land use reform
Biking
Walking
Neighborhood transit
Traffic congestion reduction
Historic preservation
Business and worker productivity
Climate change control
Stress reduction

How might these issues be connected to rail transit?

Pick one issue to research.
Interesting Train Facts

--- A double-track rail line (82’ wide) can handle 700 more people per hour than can a 6 lane highway (246’ wide). *

--- A 275-mile airline flight produces about 176 pounds of carbon emissions per passenger. A high-speed train trip of the same length produces about 29. *

--- A freight train can move one ton of freight about 436 miles per gallon of diesel fuel; almost 4 times further than can a truck. **

--- A double track railroad can carry more passengers or freight than can a 10-lane urban highway. ***

--- Our air and highway infrastructure is publicly owned. Our rail network is not. ****

* International Union of Railways  ** BNSF (or CSX) (or Norfolk Southern RR)
*** Arizona Rail Passenger Association  **** Just a plain fact
What Those Tracks Are Good For

1) Hosting the SW Chief
2) Hosting future Rail service from El Paso to Denver and points North, via Albuquerque
3) Expansion of commuter and regional passenger Rail in the states hosting the tracks
4) Restoration of local and regional Rail freight and express, and even of short mixed passenger / express trains.
5) Excursion trains, both modern and vintage
6) Field testing new Rail safety components and other Rail products.
7) Serving as a backup or relief route for the BNSF
8) Promoting increased economic development, core-city renewal and tourism
The air, highway, and waterway modes of transportation enjoy the freedom of publicly-owned fixed infrastructure.
The air, highway, and waterway modes of transportation enjoy the freedom of publicly-owned fixed infrastructure.

Do trucking companies own our highways?
The air, highway, and waterway modes of transportation enjoy the freedom of publicly-owned fixed infrastructure.

Do trucking companies own our highways?
Do airlines own our airports?
The air, highway, and waterway modes of transportation enjoy the freedom of publicly-owned fixed infrastructure.

Do trucking companies own our highways?  
Do airlines own our airports?  
Do shipping companies own our rivers and lakes?
Some Of Our Sources

www.lighttrailnow.org
www.railusers.net
www.ctaa.org
www.vtpi.org
www.narprail.org
www.freecongress.org

For more information:

Rails Inc
www.nmrails.org
rails@nmrails.org

PO Box 4268,
Albuquerque, NM 87196