James M. Jdw -0.005 Tw -15.39 -1.22 Td [(i)4(ndus)16(tr)4(i)4 s/railpolicyplan/AGRLNRail_PP_fullreport.pdf

²Brinckerhoffand Fitzgerald & Halliday, Inc.

upgrades. These upgrades are costly has been estimated that to bring all bridges and tracks in Vermont up to the 286,000 pound **sta**ard would cost \$118 million \$29 million to upgrade the tracks and \$89 million to upgrade the bridges.

There are manyepercussions for not maintaining a nationally adequate ratifrastructure for the state Vermontloses out on potential business because trains from other states ch carry more weighthan the rail lines in Vermont are able to hand detively avoid travelling through Vermont. This has effectively made the state an 'island' in the rail shipment industry where many freight carriers will circumvent the state altoget the these outdated rails and bridges were to be updated, the Vermont railroad industry would be even more economically beneficial for the state of Vermont than it is tod⁴. The fact that these regional and short rails are losing out on potential business by not be by to carry these heavier rail cars further compounds the problem-without this interstate business they are not able to upgrade their infrastructures⁵.

The current state of Vermont's railroad infrastructure has direct implications impact the industry is able to have on the Vermont economy will look at the impact of the transport rail industry on the Vermont economy, including the implications that an inadequate infrastructure has on the economy.

Economic Impact of the Rail Industry

Currently, the railroad industry plays a significant in Vermont's economy. In addition to the impacts created shipping through rail, discussed later is estimated that this industry creates 616 Vermont jobs with a payroll of \$19.2 million axpayments to the state by railroad employees also allow for more funding in social programs, educational services, and other programs which provide a net fiscal gain to the state of Vermont.

There are nine railroad companies in the state of Vermont and 185 direct employees of these T-4(at)6(aro)-(h)-4(e)-1ag s g if Vermonmses1fit aenr

total, there were 515 jobs dependent on the railroads in Vermont in the year 2005.

numbers were obtained from a study published by the University of Iowa's Public Policy Center comparing the external costs of freight shipment versus truck shipm¹[®]nt.



Figure 1: Bar Graph Indicating External Costs Associated with Truck Shipping versus Rail

EnvironmentalImpactsof Railroads

According to the Inventory of U.S. Greenhouse Gas EmissionSinkscompiled by the U.S. Environmental Protection Agen (FPA), transportation can be held accountable for 28% of the total amount of greenhouse gases emitted in the United States. The following Graphe 2, taken from a U.S. Department of Transportation policy overviewe presents the distribution of greenhouse gases emitted by the different forms of transportation. The graph shows that 20% of transportation emissions are from trucks and only percentare emitted by freight rails⁸.

¹⁶ DavidJ. Forkenbrock, "Comparison of the External Costs of Rail and Truck Freight Transportation," Public Policy Center, The University of Iowa, October 4, 1999, accessed April 9, 2012,

http://faculty.arec.umd.edu/cmcausland/RAKhor/rakhor%20task10/forkenbrock01.pplf 1314.

¹⁷ David J. Forkenbrock, "Comparison of the External Costs of Rail and Truck Freight Transömptation 4. ¹⁸ Cristiano Facanha and Jeff Alogson, "Policies to Reduce Greenhouse Gas Emissions Associated with Freight Movements," U.S. Department of Federal Highway Administration, accessed February 24, 2012, <u>http://www.fhwa.dot.gov/policy/otps/innovation/issue1/policies.htm</u> Figure2: Greenhouse Gasemissions by Source and Transportation Mode (2005)

TheEPAstated that trains typically give off three times less particulates and nitrogen oxide

railroad infrastructure, it is ont performing to itspotential. B