

**New York State
Environmental Investment Program
Research Project Summary**

NP&G Innovations, Inc.

Project Background

NP&G Innovations was founded in 2003 to develop and commercialize an alternative railroad cross-tie called TireTie™ made with recycled tire strips as the main component.

The ubiquitous wooden railroad crosstie is becoming obsolete. It is made with creosote and other preservatives which are finally being recognized as environmentally harmful, both in-service and at disposal. Also, the wood resources to make the ties are becoming scarcer. For these reasons, railroads worldwide are more interested in alternatives than ever before. NP&G's patented tie design offers distinct performance and cost advantages over both the traditional tie and other alternative ties. In order to interest the railroads in its TireTie™, NP&G developed this research project to prove it can meet the industry's standard performance requirements.

Project Description

The research included answering questions regarding the NP&G's cross tie ability to be robust and affordable, while passing standards tests of the

US rail industry, and centers such as the Transportation Test Center Inc. (TTCI)

Project Results

NP&G's TireTie™ has passed all development and testing targets so far. The design meets all the functional needs specified by AREMA Committee 30 for the US market, including static stiffness and strength, electrical conductivity, lateral durability, thermal expansion, ballast lateral retention and fastener retention.

Although the TireTie™ passed TTCI's laboratory test requirements, the heavy load field testing was not performed due to high liability insurance costs that were not anticipated and not revealed to NP&G until late into the project. (As of the close of the project, testing at Norfolk Southern and BNSF railroads was still under way. Based on previous test results, NP&G does not anticipate any problems in achieving either railroads' requirements.)

Next Steps

NP&G needs to raise additional funds to complete the heavy load funding. Once it secures some significant orders it can create a full production facility. Discussions are underway with potentially interested parties.

Contractor:	NP & G Innovations	NYS EIP Investment:	\$194,310
County:	Monroe	Contractor Match:	\$729,384
ESD Region:	Finger Lakes	Total:	\$923,694
ESD Contact:	518/292-5340	Completion Date:	December, 2008