

DRAFT

GIMME SHELTER: EMPOWERING YOUTH
THROUGH ART AND ENGINEERING

This project aims to engage young people in improving access to public transportation as a way to reduce carbon emissions. (Buses offer a huge untapped potential to realize fuel efficiencies.¹)

Inclement weather is a major barrier to wider bus use. COAST estimates the cost of a new shelter at \$20,000 and would need to reduce service in order to add shelters.

Youth empowerment activities support young people in acting to benefit themselves and their communities. Surely No generation has faced a more daunting challenge than adapting to climate change. This project would increase young people's knowledge of climate change while also enabling them to act (locally) on that knowledge.

This project proposes to engage students and young people in designing and building one or more site-specific—that is, unique to Dover—bus shelters.²

We anticipate that local artists, architects, educators, the City, and COAST will participate in the project. In order to finance construction and consultation costs, we propose to seek federal, state, and local funding under several umbrellas: transportation, arts, and youth programs as well as contributions from local businesses and in-kind City donations. Some desirable outcomes include:

¹ Buses offer the greatest potential gain, measured in passenger miles per gallon (PMPG). A 2010 study suggests that buses currently operate at about 12% of their potential capacity. Airplanes, by contrast, operate at about 79% of potential capacity. See chart at the end of this document.

² High-Use sites currently sites under consideration by COAST:

- Sixth Street/County Farm Road: Route 33 inbound
- Sixth Street/Venture Drive: Route 33 outbound
- Central Avenue/Spring Street: Route 2S
- Central Avenue (CVS Pharmacy): Route 2S
- Central Avenue/Ash Street
- New Rochester Road/Willand Pond Road (Applebee's): Route 2

For COAST

- An additional shelter in the COAST system.
- Increased public awareness of public transportation options.
- Greater participation in the COAST transportation system.

For Youth:

- Productive teamwork, problem-solving, communication skills in the context of a real problem.
- Potential educational benefits of engaging local history as bus shelter theme.
- New transportation/ building/ communications technologies may grow out of student participation

For the Community

- Reductions in carbon emissions.
- Public Art installation.
- Increased tourism.

Page 3 shows some creative existing shelters and concepts for the future.

Proposal Authors:

Liz is a recently retired education researcher whose work involved documenting exemplary school practices (National Blue Ribbon Schools). She has seen how powerfully design/engineering problems engage students of all ages. A former chair of the Dover Energy Commission and coauthor of the City's Sustainability Plan, she is a longtime Dover resident.

Yulia Rothenberg is a grant-writer with a focus on Community Development who currently works at the UNH Sustainability Institute. A graphic and jewelry artist and avid sustainability advocate, she has served on the Dover Arts Commission since 2015 soon after arriving from Boston. Her other volunteer passions include local theater, affordable housing, and the sharing economy.

Existing Bus Shelters



Lexington, Kentucky



Athens, Georgia



Santa Fe, New Mexico



Sheffield, England

Concepts



Solar Power, Green Roof



Recycled Materials

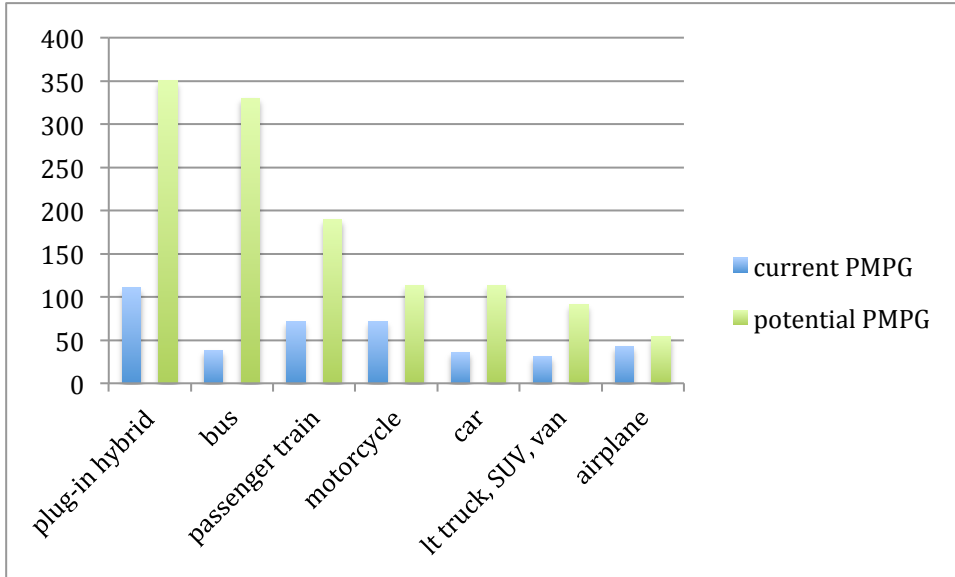


Motion Generated Energy



Bird Habitat

Chart 1: Potential Gains in Transportation Efficiency, by Mode



PMPG: Passenger Mile Per Gallon