

Propane Education & Research Council (PERC) Vehicle Development Guidelines

PERC is interested in funding projects with a high success potential measured by how many units can enter the marketplace and how many propane gallons of sales result from those units. PERC is not interested in proving technical feasibility.

In order to have successful development, commercialization and sustainability of propane vehicles entering into the market PERC has developed a template that applicants must follow and answer completely. The following project submission guidelines for applicants replying to requests for proposals consist of two main requirements:

I. Product Development

- ***Technology***
The technology selected will play a critical role in the vehicles performance and durability. Please provide a detailed explanation of the technology and components used within the fuel system, any applicable code or standard to which the component or system must comply, and the level of compliance actually achieved.
- ***Certification Levels***
Meeting the most stringent emissions requirements is critical to the continued success of propane vehicle programs. Please indicate the certifications levels expected to achieve for light, medium and heavy duty vehicles. Please be specific with regards to EPA's exhaust, running loss and SHED emission standards as well as EPA's On-Board Diagnostics (OBD) & On-Board Diagnostic II (OBD II) compliance and California Air Resource Board's (CARB) requirements.
- ***Durability and Vehicle Testing***
Please provide a detailed explanation of the durability and vehicle testing protocols & standards to be followed in the development process and indicating which are voluntary or arbitrary and which are mandatory.

II. Commercialization Plan

The customer demands, expects and should receive a seamless product compared to gasoline or diesel. Commercialization is critical to the success and sustainability of any propane vehicle program. The elements of commercialization must include but not be limited to:

- ***Maintenance Service & Training***
Define your strategy to accomplish maintenance and training on vehicles in multiple geographical locations. Please describe partnerships or joint ventures established to successfully maintain propane vehicles once entered into service including:
 - Technical support
 - Technician & parts training
 - Field service
 - Special tools & equipment
 - Parts inventory.

- ***Warranty***
Describe product warranty and coverage. Additionally, discuss affects of propane fuel system on OEM warranty if any.

- ***Marketing***
The competitive environment of gasoline, diesel and other alternative fueled vehicles requires innovation and thoroughness. Please provide background information, timing, and budget for your marketing plan as well as plans for:
 - Product distribution
 - Sales training & incentive programs
 - Vehicle demonstration availability.

- ***Cost***
Based on the above related information and amount of funds requested from PERC to assist in the development of a propane vehicle, fuel system and/or fuel system components, applicants are expected to have a reasonable estimate of the per unit cost regardless of quantities per customer. Applicants must also be prepared to commit to a “not to exceed” per unit price to (1) manufacture, and (2) a per unit price to the customer. Please provide a detailed breakdown of retail pricing of a complete installation and (if anticipated) sales of kits/components as well.