

Request for Proposals

Scoping Study – International Technology Verification Center

Deadline: June 20, 2014

Contact

Questions and submission responses to this request for proposal (RFP) should be addressed to Rachel Muncrief (rachel@theicct.org, 202-407-8343). Entities interested in responding to the request for proposals should submit their organization's name and contact email to rachel@theicct.org in order to be informed of any updates to the request. Guidelines for submission can be found below.

Budget

Proposals can be up to \$50,000.

Timeframe

Proposals must be received by June 20, 2014. The award is expected to be made by July 10, 2014.

Background on the ICCT

The International Council on Clean Transportation (ICCT) is a 501(c)3 nonprofit organization whose mission is to support policymakers around the world in reducing energy consumption and conventional pollutant and greenhouse gas emissions, from personal, public, and goods transportation in order to improve air quality and human health, and mitigate climate change.

Summary of RFP

This request for proposals (RFP) is targeting a consultant with expertise in technologies for freight efficiency, operational strategies, and technology verification to develop a detailed set of recommendations for what is needed to create and sustain an International Technology Verification Center (ITVC). The proposal will identify a potential timeline, the roles of various organizations, the budgetary and staffing requirements, the potential benefits, the potential risks, and potential funding streams to support the creation and implementation of an ITVC. The overall deliverable from this project is a high quality report that lays out the critical details and next steps involved in the development of an ITVC.

Introduction

Freight carriers, international shippers, and governments around the world are interested in lowering the carbon footprint and increasing the efficiency of their freight system. Meanwhile, technology manufacturers are developing and bringing to market new technologies, devices, and strategies that can improve freight efficiency. However, lack of credible information about the effectiveness of efficiency technologies has been regularly identified as a major barrier to the introduction of cost-effective technologies in major markets^{1,2}.

The International Council on Clean Transportation is seeking a professional consulting firm to carry out a scope of work that will help us understand how best to found a new service within the ICCT to certify energy efficiency technologies for heavy-duty trucks to serve major markets around the world. At present, we are calling this new service the International Technology Verification Center (ITVC).

The ITVC should be both a resource for truck fleets as well as provide a service for technology manufacturers. Specifically, the purpose of the ITVC is to provide accurate information to truck fleets, as well as green freight programs, and other interested stakeholders in countries around the world about the real world effectiveness of energy efficiency devices (e.g., side skirts on trailers, low rolling resistance tires, telematics systems, alternative fueling systems) and operational improvements (logistics to reduce empty miles) that can be applied to the in-use fleet. In addition, the ITVC will work with technology manufacturers to provide them with credible and independent validation of their technologies to lower market barriers for their products. A touchstone for this initiative is the US Smartway program that employs US EPA certification of technologies as a means of accelerating technology penetration in the US fleet.

This request for proposals (RFP) is targeting a consulting team with expertise in the freight sector (including international green freight activities), knowledge about current technology verification methodologies, and previous experience in business plan development. These qualifications will be critical for the development of a detailed set of recommendations for what is needed to create and sustain an ITVC. The RFP will identify a potential timeline, the roles of various organizations, the budgetary and staffing requirements, the potential benefits, the potential risks, and potential funding streams to support the creation and implementation of an ITVC. The overall deliverable from this project is a high quality report that lays out the critical details and next steps involved in the development of an ITVC.

ITVC Objectives

At the moment, we have developed a short list of five key objectives and challenges for the ITVC:

¹ <http://www.theicct.org/hdv-technology-market-barriers-north-america>

² <http://www.theicct.org/market-barriers-increased-efficiency-european-road-freight-sector>

1. **One-Stop Shop.** Certification of technologies is typically a costly endeavor, and thus there is a strong incentive for companies to test once, and use across multiple regions. At the same time, a trailer side skirt, for example, will achieve vastly different fuel savings depending on the amount of time a truck operates over highway speeds. In short, duty cycles, as well as other region-specific attributes, will play a major role in determining efficiency improvements, and must be accounted for within the verification process. We believe that it would be possible for one test to generate fuel savings estimates for any number of regions as long as the duty cycles and other influential elements for each region are well understood.
2. **Reciprocity.** The ICCT has working relationships with technical institutions engaged in certification of vehicles and engines in each of the major vehicle markets. Examples include EPA in the US, CETESBE in Brazil, Fraunhofer in Europe, ARAI in India, CATARC in China. These institutions would be invaluable in providing certification services consistent with agreed upon protocols and methods. To the extent that there is an agreement to implement select protocols, the objective of “one-stop shop” would be achieved if test results from one institution were accepted in all other institutions. In addition, there are a large number of private labs and testing organizations in many regions that are capable of conducting high quality verification testing. It is key that tests performed by these organizations are also accepted on an international scale. This will likely require developing and maintaining close relationships with a number of testing organizations. It is key that there is high confidence from all stakeholders in the results of any testing that is conducted.
3. **Technologies and Operations.** The main thrust of the technology verification center would be on energy efficiency technologies. These include aerodynamic devices, low rolling resistance tires, auxiliary energy units, etc. There are also operational and logistical improvements that could result in major efficiencies, such as reduction to empty miles. It is clear that when it comes to verifying the efficiency improvements of different efficiency technologies there is an inherent spectrum of quantification that is possible. Certain technologies will lend themselves to a quantification of benefits with a high level of certainty while with others that will not be possible. The ITVC should be able to address the spectrum of options and have reasonable methodologies in place for providing the best available information on the technologies that are less quantifiable.
4. **Real World Validation.** As efficiency technologies are being adopted across fleets, large amounts of data are being collected by the end-users themselves. Some of this data is reported and collected through existing green freight or other reporting programs, but much of the specific information remains internal to the fleet or organization. It will be important for the ITVC to not only monitor the publically available data, but to also build relationships and develop methods for harnessing the information collected by trucking firms about their fuel use, and the savings that flow from investments in energy efficiency technologies and improved operations. This real world validation will lend additional credence to the technology verification.

5. **Business Case.** Substantial value will accrue to those technologies that receive verification in terms of increased sales. Such an added value should pay for the cost of the verification. It is the desire of the ITVC to be self-sustaining by creating a value for technology manufactures that will pay for the technology verification service. Assisting fleets in obtaining capital to purchase technology for their trucks could add further value. Lack of capital can be a major barrier to fleets looking to purchase new technologies for their trucks. Supplying information lenders on the cost effectiveness of new technologies will help fleets finance technology improvements to their fleets.

Tasks for RFP scope of work

The RFP entails three main tasks to be completed by the contractor.

Task 1 – BASELINE INFORMATION AND SCOPE REFINEMENT - Compile information via literature reviews, surveys / interviews about each of the following types of organizations, institutions, companies that play a critical role in technology verification consistent with the themes described in Part 1. It will be crucial to get feedback from a range of stakeholders on the most important components of the ITVC and how they could be involved in the development of such a Center.

- Technology Verification Programs (e.g., US EPA, CARB, Low Carbon Vehicle Partnership)
- Manufacturers of energy efficient technologies (e.g., aerodynamic devices, low rolling resistance tires, telematics)
- Trucking firms from each major market under consideration (i.e., North America, Latin America, China, India, Europe).
- Agencies and institutions involved in Green Freight Programs (e.g., US EPA Smartway, Canada's Smartway program, Mexico's Transporte Limpio, Green Freight Europe and Asia, Smart Freight Center).
- Verification testing facilities and laboratories

Based on the learnings gained through stakeholder research recommend a refined scope and priorities for Tasks 2 and 3. For example, which vehicles will be covered? which technologies should be given highest priority? what is the geographic scope of the Center?

Task 2 – SCENARIO DEVELOPMENT AND ASSESSMENT – Based on the information gathered from Task 1, develop a set of three or more approaches for establishing an International Technology Verification Center. The approaches would flow from the information gathered under Task 1. For example, approaches could vary by funding level; different approaches could prioritize various geographic regions; different approaches could focus on particular technologies, or fleets, or operational measures.

For each scenario, please include the following items for discussion and exploration:

- What is the role of the ICCT and how will it differ amount various options?
- What is the business model, and what are the risks and potential for long-term sustainability?
- How will this center serve the economic interests of the technology manufacturers and trucking companies?
- What new relationships and partnerships would be required for each approach?

Task 3 – RECOMMENDATION – Based on the options developed and assessed in Task 2, select one option as the primary recommendation for detailed exploration and development. The in-depth examination should include the following:

- Business description (e.g., definition of service/product, including what’s public and what’s private data),
- Business environment (market potential, competition, regulatory restrictions, collaboration with Smart Freight Center, US Smartway, etc),
- Barriers and opportunities (SWOT analysis),
- Organizational structure,
- Marketing plan,
- Operations plan,
- Communication strategy,
- Financing.
- Potential liability (i.e., what happens if truckers don’t get the fuel economy that ITVC is attesting?)
- Suggestions for a “Proof of Concept” project to test the business plan on a small scale (i.e. one technology in a limited geographic scope). This proof of concept stage could allow refinement of the larger business plan.

Summary and project milestones

The overall deliverable from this project is a high quality report that lays out the critical details involved in the development of an ITVC, as specified by the objectives above, following the tasks itemized above. Table 4 below itemizes the major elements associated with the project tasks, with various milestones that help ensure timely completion of the various tasks of the project. It is critical that ample time is allocated for review of each deliverable. It is expected that multiple review iterations of the final report will be necessary and sufficient time should be allocated in the project timeline. The estimated timeframe for this project is 6 months.

Table 1. Project deliverables and timeline

Area	Elements	Expected Date*
Kick off	<ul style="list-style-type: none"> • Meeting (teleconference, video conference, or in-person) between ICCT and the consulting team, EPA, • Establish steering committee for review of work • Review timeline and scope of work 	August, 2014
Task 1 Baseline information	<ul style="list-style-type: none"> • Literature review, surveys and interviews, scope refinement • Deliverable: Powerpoint presentation or memo to ICCT providing draft report on Task 1 	October, 2014

Task 2 Scenario development and assessment	<ul style="list-style-type: none"> • Develop a minimum of three possible scenarios to be selected from • Deliverable: Powerpoint presentation or memo to ICCT providing draft results for Task 2 	November, 2014
Task 3 Recommendation	<ul style="list-style-type: none"> • Develop a detailed recommendation based on the primary scenario • Deliverable: Draft final report to ICCT and steering committee that responds to Task 1 and Task 2 ICCT comments and provides a draft final report with recommendations. 	January, 2014
Final Report	<ul style="list-style-type: none"> • Respond to ICCT and steering committee reviews on draft final report • Deliverable: Submit final report 	February, 2014

** Dates based on assumption that contract is signed by July 31, 2014*

Guidelines for proposal submission

The RFP responses should be submitted electronically to rachel@theicct.org and include the following:

Transmittal letter

The transmittal letter shall be in the form of a standard business letter on the vendor's letterhead, signed by an individual authorized to legally bind the vendor, and shall include the name, title, address, email address and telephone number of the individual(s) who can be contacted for questions regarding the RFP response. Disclosure of any real or potential conflict of interest must be provided based on the firm's clients, proposals to pending clients, direct business or significant personal relationship with any ICCT council member, board member or staff member.

Methodology

- Provide a detailed methodology describing how your firm will perform the tasks detailed in this RFP and achieve the overall RFP objectives.
- Provide a timeline for the development of the tasks. (include time for an iterative review process of the final deliverable)

Team and organization overview

- Describe your organization, its overall mission, customer service philosophy and culture, current staffing, and other pertinent resources related to this project.
- Provide resumes (including education and experience) of individuals that would be assigned to the ICCT project.
- Provide a separate listing of relevant analyses, reports, and activities that were conducted by the proposed researchers and are related to this RFP.
- Provide a list of references that can attest to the researchers completion of projects that are similar to this RFP's scope.

Project management process

- Describe your firm's process for managing the project and dealing with clients, including the frequency, and method of regular communications regarding project status with client.
- Describe your firm's process for quality assurance and quality control, project cost controls, and timeline adherence.

Fees

- Please provide a breakdown of all fee areas, hourly rates for individuals, and the breakdown of person-hours by major task and deliverable.
- Describe the frequency and timing of your preferred fee payment requirements.

Minority and Women Business Enterprises

The ICCT encourages proposal submissions from minority and women owned businesses enterprises. Please indicate on the proposal if your organization is a minority or woman owned business.

Terms and conditions

The written RFP responses and any subsequent bids made during the procurement process will be considered binding commitments by the prospective vendors. The ICCT may request additional information or clarification of any obligation, if a contract is awarded.

The bidder agrees to be bound by this RFP response for a period of 45 calendar days from the RFP response due date during which the ICCT may request clarification or correction of the RFP response if necessary for the purpose of evaluation.

The cost of preparing the RFP response is the sole responsibility of the bidder, whether or not any award results from solicitation.

The ICCT reserves the right to add provisions to the contract consistent with the contractor's bid and to negotiate with the contractor other additions to, deletions from, and/or changes in the language in the contract — provided that such addition, deletion, or change in contract language would not, in the sole direction of the ICCT, affect the evaluation criteria set forth herein, or give any bidder a competitive advantage.