

US EPA ARCHIVE DOCUMENT

## Participation in the Environmental Technology Verification Program

### About ETV's APCT Center

The APCT Center is operated under a cooperative agreement between EPA and RTI International (RTI). The Center identifies promising new technologies that control stationary, mobile, and indoor air pollution (and often offer additional environmental and cost related benefits), develops a performance verification strategy, and conducts high quality, independent field testing on the technology. To qualify for the ETV program, candidate technologies must be commercial-ready. Technologies still in development at the research and development, prototype, or pilot stage will not qualify for verification testing. Testing must be conducted on a full scale technology, typically in a real-world application for which the technology is intended.

Before any testing is conducted, a vendor specific test and quality assurance plan is developed. This test plan is based upon a pre-existing protocol developed by EPA. The test plan is peer-reviewed by industry experts and stakeholders before final review and approval by EPA. The test plan includes a technology description, identifies specific verification parameters, and details the verification approach and field testing methods. The final test plan becomes public and is posted on the ETV website. Verification testing is conducted by a third party testing facility with oversight by APCT. Test results are presented in a verification report and an abbreviated verification statement, all of which are reviewed the vendor, APCT, EPA, and subject matter experts. Upon approval, the verification statement is signed by EPA's Director of the National Risk Management Research Laboratory of the Office of Research and Development. The final verification report and statement become public and are posted on the ETV website.

Test results are published regardless of a technology's performance. For this reason, it is very important for the APCT Center to focus on the most promising technologies. Therefore, we typically require some form of preliminary performance data on the technology before proceeding with the verification. Anecdotal performance data are not acceptable.

A signed verification statement with favorable results can become a powerful marketing tool for most vendors. Moreover, the APCT Center conducts a variety of outreach activities to promote technologies that demonstrate good performance. These outreach activities include press releases, journal articles, conference presentations, and a stakeholder newsletter. High quality independent performance data, an EPA sponsored verification statement, and the APCT Center's outreach activities represent the major values of the ETV program to most technology vendors and developers.

### Steps to Verification

There are four steps for technology verification through the APCT Center: technology pre-screening, application, test plan preparation, and verification testing. Vendor costs are associated with the last three steps. Costs include an application fee, test plan preparation costs, and verification testing costs. The application fee is fixed, however the test plan preparation and verification testing costs vary depending upon the complexity of the proposed test. The cost of test plan preparation will be determined during the application phase. Verification testing costs will be determined during the test plan development phase. Both the test plan and testing costs

must be paid in advance of each step to allow the APCT Center to maintain its independence during the test plan preparation and testing phases of the verification.

### Vendor and Technology Pre-screening

In order to identify the best candidate technologies for verification under our program and to minimize the possibility of unfavorable test results, it is important for the APCT Center to pre-screen applicants. As such, we request the following information, submitted via email, precede your application request:

1. Complete company name, point of contact, and contact information.
2. Description of the technology, how it works, performance claims, and potential market.
3. Description of manufacturing capabilities and distribution rights.

All information provided at this stage is held strictly confidential. If it appears that your technology is a viable candidate for verification, APCT will request submission of a formal application along with the required application fee.

### Application

To qualify for ETV verification at the APCT Center, vendors are required to complete and submit a formal application, along with a non-refundable application fee of \$2,000. Should the applicant technology be approved and selected for verification, the application fee will be applied to the vendor portion of the verification testing cost. At a minimum, APCT will request the following information as part of the application:

- Operating instructions
- Installation requirements
- Warranty information
- Performance data

Following application and test data review, approved vendors will receive notification from APCT regarding acceptance into the ETV program and the associated cost of preparing the test plan for technology verification.

### Test Plan Preparation

Approved vendors will move into the test plan preparation phase. The technology specific test plan defines the performance verification goals and testing strategy, the sequence and scheduling of key verification activities, the roles and responsibilities of key participants, reporting, and a description of the verification cost-sharing commitments. Prior to final approval, the plan is peer-reviewed by subject matter experts, stakeholders, APCT, and EPA.

### Verification Testing

Upon test plan approval, the vendor is expected to pay APCT for the full cost of the verification before technology verification begins. This requirement allows APCT to maintain its independence during verification testing and reporting. Following payment, verification testing will occur according to the procedures and schedule in the approved test plan.

The test plan also becomes part of the verification testing agreement between APCT and the vendor. By signing the agreement, the vendor: (1) acknowledges that they agree to participate in the verification program described in the document; (2) understands their role and responsibilities; (3) agrees to execute them in good faith; and (4) agrees to abide by the cost-sharing guidelines. The activities of one participant affect the activities of the others. Therefore, the standard agreement and attachments is intended to protect all participants involved by spelling out obligations and desired outcomes at an early stage.

The agreement also outlines the verification cost and cost sharing schedule. Overall verification costs are shared, are highly technology specific, and can vary widely. Generally the overall verification costs are in the range of \$20,000 to \$250,000 depending on complexity of the technology under test and associated testing. The vendor's cost commitment is usually 75% to 90% of the overall cost, shared as shown in the following table:

Activity	Cost Responsibility
Verification Strategy Development	APCT Center
Verification Test Plan Development	Vendor
Verification Testing & Analysis	Vendor
Verification Report Development	Vendor
Outreach	APCT Center

In some instances, the vendor or APCT is able to procure additional funding from government agencies or stakeholder associations with particular interest in a certain technology. In these cases, the funding provided by other parties is used to offset an equivalent portion of the vendor's costs. Additionally, in some cases the facility or site hosting the test provides in-kind contributions to the overall cost of the verification.

The APCT Center looks forward to hearing from you and exploring the potential of verifying your technology under the ETV program. Your responses to the pre-screening items listed above should be sent electronically to Jason Hill at [jhill@rti.org](mailto:jhill@rti.org).

Thank you,

Jason Hill  
Director  
APCT Center