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\$2.6 Million Awarded for Clean Air Technology

SACRAMENTO - The California Air Resources Board (ARB) has selected 12 new proposals to receive this year's Innovative Clean Air Technology (ICAT) awards. The \$2.6 million, the largest yearly amount ever dispersed through ICAT, will help transition these projects from theory to working models that will illustrate their commercial potential.

“Commercialization of these technologies will give California benefits far beyond the dollars we’re investing,” said ARB Chairman, Dr. Robert Sawyer. “Some will provide new insights into the nature of the air pollution and others will help us reduce emissions for years to come.”

Of the 104 pre-proposals originally submitted for consideration, these 12 projects were selected:

Two Projects to Measure Particulate Matter (PM) Emissions from Diesel Engines: These projects will develop technology that will produce more accurate data on the emission of particulate matter from diesel engines.

- **Measurement of PM Using Electrostatic Charging** – Environmental Systems Products Holdings, Inc. - \$250,000
- **Measurement of Solid Carbon (Soot) Using Laser Induced Incandescence** – Artium Technologies, Inc - \$200,000

Two Projects for Marine Emissions Control Technologies: These projects will aid in the development of technology that will reduce the amount of emissions put in the air from marine engines.

- **Demonstration of Selective Catalytic Reduction and a Diesel Particulate Trap on Passenger Ferries** – Engine, Fuel, and Emissions Engineering, Inc. - \$151,170
- **Development of a Three-Way Catalyst for Four-Stroke Outboard Engines** – Mercury Marine - \$475,000

Three Motor Vehicle Diesel Engine Emissions Technologies: Diesel engines particulate matter emissions account for seventy percent of the air borne toxic air contaminants that Californians encounter daily. These projects will go to develop new technology that will reduce those emissions.

- **Demonstration of Lean-NOx Trap, Diesel Particulate Filter, and On-Board Reformer** – NxtGen Emissions Control, Inc.- \$200,059
- **Demonstration of Selective Catalytic Reduction and Continuously Regenerating Trap for**

Off-Road Engines – Johnson Matthey, Inc. - \$70,000

- **Demonstration of Solid Ammonia Storage System for Selective Catalytic Reduction** – Extengine Transport Systems - \$157,000

Two Non-Diesel On-Road Vehicle Technologies

- **Demonstration of a Natural Gas-Fired Engine with Selective Catalytic Reduction and Exhaust Gas Recirculation** – Cummins Westport, Inc. - \$250,000
- **Demonstration of a Lithium-Powered Propulsion System in a Transit Bus** – ISE Corp. - \$290,000

Three Stationary Source Technologies

- **Demonstration of a Laser-Based System for Stripping Paints** – Institute for Research and Technical Assistance - \$200,000
- **Demonstration of an Acoustic Sensor to Reduce LPG Emissions from Refilling of Storage Tanks** – The ADEPT Group, Inc. - \$150,200
- **Demonstration of a Closed-Loop Combustion Control System for Microturbine Generators** – University of California, Irvine, Combustion Lab - \$215,000

The ICAT program was developed to facilitate the commercialization of technologies that will control air pollution and support ARB's clean-air objectives. The intent is to bridge monetary gaps that arise between the development of new technologies and the creation of models that demonstrate the concepts' commercial applications.

Since its beginning in 1994, 44 projects have been approved. Forty-one of the funded projects have been technologies to reduce emissions from mobile, area, and stationary sources of air pollution. Three projects are for novel or improved instruments to measure fine particulate matter at low cost.

Twenty-seven of the projects have been completed, and nine of the ICAT technologies have been commercialized. Two of the more successful projects include a diesel particulate filter that is regenerated while the vehicle is not in use, and a fleet of electric-powered tractors used to transport baggage to commercial airliners. The Elk Grove School District in Sacramento County has installed 49 of the diesel particulate filters in its school buses, and Southwest Airlines is using the electric-powered tractors at Sacramento International Airport.

This year, the California legislature approved a one-time increase of \$1 million for ICAT, bringing this year's allocation to about \$2 million. Normally, ICAT is funded at about \$1 million per year. This increase was provided so the ARB could consider awarding larger grants, and to consider projects related to other air quality areas, such as emissions measurement and monitoring. Of the \$2.6 million in funding for the new projects this year, the South Coast Air Quality Management District will consider contributing \$278,500 for half of the funding for three projects. And, the California Energy Commission will contribute \$250,000, fully funding one project.

For more information see: <http://www.arb.ca.gov/research/icat/icat.htm> .

The Air Resources Board is a department of the California Environmental Protection Agency. ARB's mission is to promote and protect public health, welfare, and ecological resources through effective reduction of air pollutants while recognizing and considering effects on the economy. The ARB oversees all air pollution control efforts in California to attain and maintain health based air quality standards.