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Details of the ARRA 'Green' Transit Project awards are listed below. If you are interested in having SPI point you to specific opportunities, contact Reagan Weil at 512.531.3900.

Alabama: Montgomery Area Transit System (Montgomery), \$2,675,000. Purchase of Five Hybrid Electric Buses: City of Montgomery-MATS proposes to purchase 30-35 foot low floor hybrid-electric buses in order to replace existing transit system buses.

California: AC Transit (Hayward, headquarters in Oakland), \$6,400,000. Install photovoltaic capacity to generate "green" hydrogen: Install multiple PV modules at its Central Maintenance Facility in Hayward. Combined with AC Transit's already-installed solar capacity, this solar installation will produce the renewable electricity equivalent to what will be required to produce 180 kg/day of "green" hydrogen.

California: City of Santa Clarita, \$4,620,000. Photovoltaic Modules on Transit Maintenance Facility: Add photovoltaic (PV) modules to the Transit Maintenance Facility (TMF) to generate electricity to offset the electric power consumed at the TMF site. The PV modules will be placed on top of canopies that will generate electricity while providing shade for full-size inter-city and commuter buses.

California: Los Angeles County Metropolitan Transportation Authority (Los Angeles), \$4,466,000. Red Line Westlake Rail Wayside Energy Storage System: Install wayside energy storage substation (WESS) at Westlake passenger station is at-grade level on the high-speed heavy rail subway Red Line. The nearby traction power substation will be switched off when the WESS is operating. The WESS flywheel technology captures regenerative braking energy when trains slow or stop and transfer back to same train or another train when it starts or accelerates, reducing energy demand and peak power requirements.

California: North County Transit District (North San Diego, headquarters in Oceanside), \$2,000,000. PV Solar Implementation at facilities: Install PV solar in a variety of facilities.

Colorado: Denver Regional Transportation District (Aurora, headquarters in Denver), \$770,000. Heating upgrades at East Metro bus maintenance facility: To improve the heating system at its East Metro bus maintenance facility located in Aurora, CO. This project will replace the three existing boilers with three new 15-psi, 20-ppm NOx boilers with Advanced Hawk Integrated Control Systems. The advanced control system will operate the boilers based on load demand as opposed to outside temperature.

Colorado: Denver Regional Transportation District (Boulder, headquarters in Denver), \$325,000. Heating upgrades at Boulder bus maintenance facility: To improve the heating system at its Boulder bus maintenance facility located in Boulder, CO. This project will replace two old boilers with four new 2.5 MBtu Clearfire condensing boilers with 20-ppm low NOx burners. An updated control system will allow the boilers to be reset based on outdoor air temperatures, will reduce cycling of the boilers, and will serve as a boiler master controller that will stage the boilers based on demand loading.

Connecticut: Connecticut Department of Transportation (statewide) \$7,000,000. Stationary Fuel Cells and Hybrid Transit Buses Incremental Costs: The purchase of diesel-electric hybrid transit buses and stationary fuel cells for use in the statewide bus system in Connecticut. This grant would allow ConnDOT to upgrade the upcoming purchases of buses and would fund the incremental cost of a hybrid bus compared to a conventional bus. It would also fund stationary fuel cells to provide primary and emergency back-up power for the bus maintenance and storage facilities.

Delaware: Delaware Transit Corporation (statewide), \$1,500,000. Solar Panel Installations at DTC facilities: Retrofits Delaware Transit Corporation facilities with solar panels, which will generate cost savings through fossil fuel energy reductions.

Florida: Palm Tran (West Palm Beach), \$320,000. Diesel Bus Efficiency Improvements with Thermal Motor Fans: Purchase and install Thermal Motor Fans for diesel buses to improve bus efficiency and lower fuel costs.

Florida: Broward County Transit, \$2,000,000. Diesel Bus Efficiency Improvements bus cooling System retrofits: Replace the mechanically/hydraulically driven cooling system on buses with electrically powered devices in order to achieve fuel savings and reductions in energy and greenhouse gas emissions. BCT will purchase and install MiniHybrid Thermal Systems ("MH8") from EMP Advanced Development LLC (EMP) which will increase fuel efficiency by 5 percent.

Georgia: Metropolitan Atlanta Rapid Transit Authority, \$10,800,000. Laredo Bus Facility Solar Canopies: Provide shade structures with integrated, grid tied photovoltaic cells to be erected on the bus storage lot at the Laredo Bus Maintenance Facility. PV canopies will produce power and reduce temperatures underneath canopies. MARTA anticipates that the power produced by these photovoltaic panels will be sold to Georgia Power under their Distributed Generation Contract Program. The largest PV installation in Georgia.

Iowa: Ames Transit Agency (Ames, CyRide), \$1,600,000. Hybrid bus purchase incremental costs: Upgrade forty-foot diesel buses on order to hybrid electric buses.

Illinois: Illinois Department of Transportation on behalf of seven transit agencies (statewide), \$4,030,000. Statewide Paratransit Bus Hybrid Program: Purchase 31 paratransit hybrid buses to replace 31 gas and diesel vehicles. Buses will be powered by an Azure Dynamics hybrid system of Michigan. Agencies include Champaign Urbana, MTD; Rockford MTD; St Clair MTD; Springfield MTD; PACE Suburban Bus; Rock Island MTD; Bloomington-Normal Public Transit System.

Illinois: Chicago Transit Authority (Chicago), \$1,500,000. North Park Electrification - Electric Power Delivery System for Outdoor Bus Parking: Construct electrified stalls that will deliver electrical power for up to 80 vehicles and provide services such as heating and air-conditioning to vehicles that would otherwise be left idling during overnight cleaning and prior to morning pullout.

Illinois: Rock Island Metro (Rock Island), \$600,000. Solar Thermal System: A solar thermal system on the building roof will provide hot water for the operations building and the maintenance building. This is a solar thermal project not based on PV-based solar.

Illinois: Champaign-Urbana Mass Transit District – CUMTD (Champaign-Urbana), \$450,000. Facility upgrade with Geothermal Heat Pump System: CUMTD will replace the existing conventional HVAC system with an efficient geothermal HVAC system. Geothermal HVAC systems are highly effective system with improved efficiencies over conventional systems due to the heat exchange process with an underground source that maintains a near constant temperatures.

Indiana: Greater Lafayette Public Transportation Corporation (Lafayette), \$2,180,000. Wind Energy Project: GLPTC seeks to reduce its electrical energy usage by investing in a renewable source of energy to be generated by wind using equipment on site. The primary use of electrical energy by GLPTC is by its garage and maintenance facilities. The installation of wind turbine units on GLPTC premises is projected to provide a significant amount of the total amount of electrical energy used by CityBus.

Massachusetts: Lowell Regional Transit Authority (Lowell), \$1,500,000. Hale Street Solar Photovoltaic system: The installation of a photovoltaic panel array on the roof of the Hale Street garage facility owned by the LRTA. The facility is used by the LRTA to store, fuel, maintain, and repair transportation vehicles (buses, vans, tow trucks etc.) as well as administrative and dispatch services. The facility is a 70,000 square foot building located in an industrial zone in Lowell, Massachusetts.

Massachusetts: Massachusetts Bay Transportation Authority (Boston), \$2,500,000. Renewable Wind Energy: MBTA will design and construct wind energy generation turbines in eastern Massachusetts (from among Kingston, Newburyport, Bridgewater).

Maryland: Maryland Transit Administration (statewide), \$522,000. Halon 1301 Replacement: The MTA currently has approximately 5 metric tons of Halon 1301 (CBrF3) deployed at 24 MTA facilities in and surrounding Baltimore City. Each metric ton of Halon 1301 released to the atmosphere - intentionally or inadvertently - is equivalent to releasing 6,900 metric tons of carbon dioxide. The scope of this project includes destruction of MTA's inventory of Halon 1301 and replacement with another clean agent.

Michigan: Thunder Bay Transportation Authority – TBTA (Alpena), \$2,590,000. Plug-in hybrid buses purchase: Replace 4 diesel buses with 4 series plug-in hybrid buses, operate in a non-urban/rural area and collect data for two years. Bay Area Transportation Authority (BATA) will provide technical assistance to TBTA.

Michigan: Flint Mass Transportation Authority (Flint), \$2,200,000. Ultra-light Zero Emissions Buses: Replaces two of Flint MTA diesel buses with advanced all-electric Zero-Emissions GTB-40 buses from Fisher Coachworks. The new Fisher buses will provide more than triple the equivalent fuel economy in all-electric mode and reduce CO2 emissions due to the extensive use of lightweight materials and the large capacity battery system.

Minnesota: Productive Alternatives/Transit Alternatives (Fergus Falls), \$845,000. Energy Reduction Consolidated Projects: A variety of building energy-efficiency upgrades, hybrid vehicle upgrades, wind generator power systems, and the equipment needed to convert cooking oil to a blend with vehicle fuel to operate some of their buses.

Minnesota: Minneapolis-St. Paul Metropolitan Council (Minneapolis), \$1,100,000. Replace Diesel Buses with Gas Hybrid Electric Buses: Metro Mobility is scheduled to replace small diesel buses that have operated over 255,000. The proposed replacement vehicles include small gas/electric hybrid buses.

North Carolina: City of Charlotte/Charlotte Area Transit System (Charlotte), \$3,000,000. Hybrid Buses: Upgrade a planned order of buses from diesel to hybrid technology. CATS' fleet and financial plans call for the replacement 1998, 1999 and 2007 year diesel buses with new diesel buses in fiscal year 2012. This project will upgrade the replacement buses to hybrid technology.

New Jersey: NJ Transit (statewide), \$250,000. Efficient Air Compressor Systems at NJ TRANSIT Facilities: NJ TRANSIT completed energy audits of its 20 largest facilities and identified air compressor conservation opportunities including variable frequency drives and increased air storage at 5 locations. These projects improve the working environment, conserve energy, reduce operating/maintenance costs and reduce GHG emissions for a ten-year lifecycle.

Nevada: Regional Transportation Commission of Washoe County (Reno), \$3,000,000. Diesel Electric Hybrid Articulated Buses: Purchase low floor 60' hybrid electric diesel articulated buses to replace 40' and 35' diesel buses.

New York: Capital District Transportation Authority (Albany), \$3,520,000. Hybrid Electric Buses Incremental Costs: For the incremental cost of making transit buses hybrid electric.

New York: New York City Transit Department of Subways (New York City), \$2,000,000. Remote 3rd Rail Heaters Monitoring and Control System: Install wireless control points linked to 3rd rail heaters in two phases. The project will allow these 3rd rail heaters to be remotely monitored and turned on and off from a central control location depending on weather conditions, thus minimizing electricity use and eliminating wasted energy. TIGGER will fund the labor portion of the project only. Material is being financed and procured through the New York Power Authority.

Ohio: Greater Cleveland Regional Transit Authority (Cleveland), \$2,257,000. Facility Energy Conservation Project: Based on the results of a comprehensive conservation analysis, GCRTA will implement a conservation project with energy procurements and retrofit resulting in significant cost savings. Includes replacement of lighting fixtures, control systems, and roof upgrades at selected facilities.

Oregon: Lane Transit District (Eugene), \$3,000,000. Hybrid Transit Buses Incremental Costs: For the incremental cost of hybrid-electric propulsion on 40-foot replacement buses. The buses to be replaced are diesel propulsion and have been in service since 1994.

Oregon: Tri-County Metropolitan Transportation District of Oregon (Portland), \$750,000. Diesel Bus Efficiency Improvements with Bus Cooling System Retrofits: Replace the existing hydraulically-powered engine cooling system with a more efficient electrically powered system. This technology has been shown at TriMet to improve fuel mileage by over 5 percent.

Pennsylvania: Red Rose Transit Authority – RRTA (Lancaster), \$2,450,000. RRTA's Operations and Administrative Center Facility Upgrades: Add energy improvements to the planned upgrade of Red Rose Transit's main operations facility in Lancaster, PA. Energy improvements include geothermal for heating and air conditioning, skylights and light tubes to reduce lighting fixture needs, solar panels on all available roof surfaces to produce electricity, a green roof on the new office addition, two waste oil burners to heat the vehicle storage building using waste oil generated by RRTA from the vehicle fleet, and energy efficient fixtures throughout the facility.

Rhode Island: Rhode Island Public Transportation Authority – RIPTA (statewide), \$345,000. Lighting Conversion and Upgrades for Facilities: Converting the lighting system at four RIPTA facilities to more energy efficient systems. The benefits of this project were identified as part of a recent energy review conducted of RIPTA facilities by Northern Energy Services. The project would entail installing new highly efficient compact fluorescent light fixtures in RIPTA facilities.

Tennessee: Chattanooga Area Regional Transportation Authority (Chattanooga), \$650,000. Lighting Upgrades for Facilities: Purchase and installation of approximately 1,724 existing fluorescent lights with LED lighting in seven areas of operation. This project would encompass CARTA's parking garage facilities, bus barn and shop, service lane, steam room, and maintenance shop.

Texas: VIA Metropolitan Transit (San Antonio), \$5,000,000. Composite body electric buses: Replace conventional diesel transit buses with 35-ft composite body electric transit buses. The project includes quick-charging stations at this terminal layover in route to recharge bus batteries. Grid sourced electrical energy used to recharge the bus batteries will be augmented with solar energy collected with panels procured and installed under this project.

Virginia: Arlington Transit – ART (Arlington), \$1,500,000. CNG-Hybrid Buses: Purchase CNG-Hybrid buses to replace Ford Diesel vehicles in the ART fleet. The CNG-Hybrid buses are heavy duty and larger than the current light duty Ford vehicles.

Washington: Snohomish County Public Transit Benefit Area – Community Transit (Everett), \$3,000,000. Hybrid Bus Transit Incremental Costs: The incremental cost of a hybrid propulsion system on 30 forty foot diesel buses that are already being procured.

Washington: Link Transit (Chelan-Wenatchee), \$2,925,000. Battery Powered Zero Emission Circulator Buses: Innovative Quick Opportunity Charge, Lithium-Ion "Titanate" Battery Powered Community Bus program. This project replaces five diesel powered buses operating on high frequency circulator routes and will also create a "quick charge" automated opportunity charge station with two charging podiums at Link Transit's Intermodal Transportation Center. An additional manual charging station would be installed at Operations Base.

Washington: Clark County Public Transportation Benefit Area (Vancouver), \$1,500,000. Facility Improvement Project: Improve various systems and install solar panels at several Clark County facilities. System improvements include high performance fluorescent lighting, LED exit signs, retrofitting existing pole lights; and installing occupancy sensors for private offices, conference rooms and bathrooms. HVAC upgrades include DDC control system covering all buildings, expanded control system with advanced control strategies. Solar PV system installations range from 5kW to 20kW.

Wisconsin: Madison Metro Transit (Madison), \$150,000. Lighting Upgrades in Bus Storage and Maintenance Garage areas: This project will install replacement lighting in bus storage and maintenance garage areas.

Wisconsin: Milwaukee County Department of Transportation and Public Works (Milwaukee), \$210,000. Purchase gasoline-electric hybrid vans: Gasoline-electric hybrid vans will be purchased to replace gasoline-powered vans used by transit supervisors.

Source: U.S. Dept. of Transportation