



BAY AREA  
AIR QUALITY  
MANAGEMENT  
DISTRICT

## Goods Movement Program Transportation Refrigeration Unit (TRU) Projects Year 5 Program - Fact Sheet

The Proposition 1B: Goods Movement Emission Reduction Program (GMP, Program) is a partnership between the California Air Resources Board (ARB) and local agencies to quickly reduce diesel emissions and health risk from freight movement along California trade corridors. Projects funded under this Program must achieve early or extra emission reductions not otherwise required by law or regulation. The Bay Area Air Quality Management District (Air District) will solicit projects during 2020-2021 for the Year 5 Program.

### **When will applications be available?**

The Air District will accept applications for transportation refrigeration unit (TRU), insulated trailer for grocery cold storage and charging or fueling infrastructure projects during this solicitation period. Solicitation will be closed on **Friday, January 15, 2021**.

### **How much funding is available for TRU projects?**

The District has about \$20 million in California GMP Bond funding available for this funding cycle for all project categories including TRU projects.

### **How will projects be selected?**

District staff will evaluate all applications received during the solicitation period and submit a single approved-projects list to ARB for competitive ranking based on estimated emission reductions and cost-effectiveness. Applicants may request a reduced funding amount to increase a proposed project's competitiveness.

### **What types of equipment is eligible for funding?**

Existing trucks or trailers equipped with diesel-fueled TRUs that are used to move commercial freight, bulk or trade goods the majority of the time for the past two (2) years within one of the four major trade corridors of California, including those operating from a port, intermodal rail yard or freight facility, and cold-storage trailers at grocery retail outlets (link to map below). The TRU equipment must have operated at least 10 percent of the time within the Bay Area trade corridor, and installation of TRU infrastructure must be within the Bay Area trade corridor.

### **What project types are available?**

Replacing diesel-powered TRU with zero-emissions TRU (e.g., electric, fuel cell), replacing diesel-powered TRUs with cryogenic TRUs, install electric charging infrastructure or install cryogenic refueling infrastructure, and replace an insulated cold storage trailer at grocery stores or retail stores that sell groceries with a zero-emissions trailer & install an electric plug.

### **How can I apply?**

Download and complete the TRU Application Form from our website (see below) and contact Air District staff with any questions. Infrastructure projects require a written proposal and cost estimate (quotation). Applications and all supporting documentation **must be received by the Air District no later than 5:00pm on Friday, January 15, 2021.**

**To Maintain Eligibility at All Times:**

Owners must ensure their Project equipment meets the following at all times:

- Equipment and owner's fleet maintain and can document compliance with all ARB (air quality) regulations [Note that program-funded equipment cannot be used towards compliance for the timeframe specified by ARB (see schedule at <https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program>)].
- Equipment owners are required to notify the Air District as soon as possible if anything about the Project changes, as there may be circumstances that cause the Project to become ineligible.

**Where can I find more information?**

If you have questions or need additional information, please contact Air District staff at [grants@baaqmd.gov](mailto:grants@baaqmd.gov) or 415-749-4994 (option 1).

**Useful Resources:**

- BAAQMD Goods Movement Program website: [www.baaqmd.gov/goods](http://www.baaqmd.gov/goods)
- ARB Goods Movement Program website: <https://ww2.arb.ca.gov/our-work/programs/proposition-1b-goods-movement-emission-reduction-program>
- Map of four major CA trade corridors: <http://www.arb.ca.gov/bonds/gmbond/docs/gmtradecorridors.jpg>
- ARB TRU regulation: <https://ww2.arb.ca.gov/our-work/programs/transport-refrigeration-unit>

*Below is a summary of the program requirements from 2017 updates to the 2015 GMP Guidelines and not a complete list of requirements.*

**Eligible Transport Refrigeration Unit (TRU) projects (summary of project specifications\*)**

<p><b>Eligible Equipment e Requirements (applicable to all project options)</b></p>	<p>Existing trucks or trailers equipped with diesel TRUs that are used to move trade goods a majority of the time for the past 2 years (Options 1 and 3); existing freight facilities within one of California's four trade corridors where trucks or trailers equipped with TRUs congregate (Options 2 and 4); and existing insulated trailers that are at least 10 years old and are used for cold storage at grocery stores or retail stores that sell groceries (i.e. big box retailers) in the four trade corridors (Option 5).</p> <p>Equipment owner must demonstrate:</p> <ul style="list-style-type: none"> <li>• 100% Compliant Carrier status within ARB's Equipment Registration (ARBER) system.</li> </ul> <p>Equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Commit to the project life specified with the applicable equipment project option.</li> <li>• Sign a legally binding contract with the local agency including project milestones and completion deadlines.</li> <li>• Demonstrate proof of equipment warranty on the Program-funded equipment.</li> <li>• Certify that there are no outstanding ARB violations or non-compliance with ARB regulations associated with the equipment or the owner.</li> </ul> <p>For the duration of the project term, the equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Adhere to all Program requirements.</li> <li>• Agree to equipment inspections.</li> <li>• Comply with record-keeping, reporting, and Program review or fiscal audit requirements.</li> <li>• Properly maintain new or upgraded equipment in good operating condition and according to manufacturer's recommendations.</li> </ul>
<p><b>Option (1) Replacement with Zero Emission Transport Refrigerator Requirements</b></p>	<p>Partial funding of up to the lower of 80% or \$50,000 to replace an existing diesel TRU with an all-electric or fuel cell zero emission transport refrigerator (TR) equipped with various range extender strategies to maintain cargo temperature and zero emission operation while at the freight facility and on the road.</p> <p>Eligible costs include the transport refrigerator.</p> <p>In addition to the General Requirements listed previously, equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Commit to a project life of 5 years or 10,000 hours, whichever comes first.</li> <li>• Scrap the old diesel TRU(s).</li> </ul>
<p><b>Option (2) Electric Power Plug Requirements</b></p>	<p>Partial funding of up to the lower of 50% or \$3,000 per electric power plug that is compatible with electric powered TRUs (e.g. all-electric, hybrid electric, or electric standby-equipped TRUs) at loading docks or parking areas of freight facilities.</p> <p>Eligible costs include purchase and installation of an electric power plug.</p> <p>Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair.</p> <p>In addition to the General Requirements, equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Install an electric plug capable of providing 460V 3 Phase power (may be capable of other voltages in addition to meeting the 460V requirement).</li> <li>• Commit to a project life of 5 years.</li> <li>• Ensure usage of the power plugs.</li> <li>• Comply with all local permitting requirements.</li> </ul>

<p><b>Option (3) Replacement with Cryogenic Transport Refrigerator</b></p> <p><b>Requirements</b></p>	<p>Partial funding of up to the lower of 80% or \$100,000 to replace five (5) existing TRUs with five (5) cryogenic transport refrigerators. Additional cryogenic transport refrigerators may be funded at the lower of 80% or \$20,000 per additional TR.</p> <p>In addition to the General Requirements, equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Commit to a project life of 5 years or 10,000 hours, whichever comes first.</li> <li>• Scrap the old diesel TRU(s).</li> </ul>
<p><b>Option (4) Install Cryogenic Infrastructure and Equipment</b></p> <p><b>Requirements</b></p>	<p>Partial funding of up to the lower of 50% or \$100,000 to install infrastructure and equipment for a cryogenic refrigeration fueling station at a freight facility.</p> <p>Eligible costs include purchase and installation of cryogenic infrastructure or equipment.</p> <p>Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair.</p> <p>In addition to the General Requirements, equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Commit to a project life of 5 years.</li> <li>• Ensure usage of the fueling station.</li> <li>• Comply with all local permitting requirements.</li> </ul>
<p><b>Option (5) Insulated Trailer and Electric Power Plug</b></p> <p><b>Requirements</b></p>	<p>Partial funding of up to the lower of 50% or \$40,000 for the purchase of an insulated trailer and one electric power plug.</p> <p>Eligible costs include the insulated trailer and the purchase and installation of an electric power plug.</p> <p>Ineligible costs include design, engineering, consulting, environmental review, legal fees, permits, licenses and associated fees, taxes, metered costs, insurance, operation, maintenance, and repair.</p> <p>In addition to the General Requirements listed previously, equipment owner shall:</p> <ul style="list-style-type: none"> <li>• Commit to a project life of 5 years.</li> <li>• Scrap or destroy the old diesel TRU(s) from the existing trailer.</li> <li>• Purchase an electric-standby capable TR and install it on the new trailer.</li> <li>• Install an electric plug capable of providing 460V 3 Phase power (may be capable of other voltages in addition to meeting the 460V requirement).</li> <li>• Ensure usage of the equipment cold storage at grocery stores or retail stores that sell groceries (i.e. big box retailers) in the four trade corridors.</li> <li>• Comply with all local permitting requirements.</li> </ul>
<p><b>Project Cost Assumptions</b></p>	<ul style="list-style-type: none"> <li>• Option (1): Total projected cost of a fuel cell or all electric zero emission TR is expected to be ~\$30,000-\$60,000.</li> <li>• Option (2): Total cost for freight facilities is \$1,500-\$7,000/plug at dock; \$2,500-\$9,000/plug in parking areas; \$500-\$2,000/adaptor for trailers and TRUs.</li> <li>• Option (3): Total cost of a cryogenic transport refrigerator is expected to be ~\$20,000 - \$35,000</li> <li>• Option (4): Total cost of cryogenic fueling infrastructure is \$20,000-\$250,000.</li> <li>• Option (5): Total cost of new trailer and plug is \$70,000-\$90,000.</li> </ul>

***\* This is a summary of the program requirements and not a complete list of requirements.***