

Application and Procedures
for the
**2016 Congestion Mitigation
and Air Quality (CMAQ)**

Public Fleet Alternative Fuels & Idle Reduction Program

Issued by:
INCOG and Tulsa Area Clean Cities
June 8, 2016



Project Proposal Deadline:

August 1, 2016

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Instructions for Application Submission

Submit one signed PDF application to ajaynes@incog.org.

or

Fill out the application online at tulsacleancities.org/cmaq
and submit all requested documents to ajaynes@incog.org.

Proposals are due August 1, 2016.

- All attachments should be appropriately labeled.
- All applicants must use the provided forms.
- Hand-written applications or applications not using the correct forms will not be accepted.
- Signed applications must be received by the deadline.
- **Unsigned and/or incomplete applications will not be considered.**
- No changes in the grant application shall be permitted after the deadline.
- Submission of application package does not guarantee funding will be awarded.

If you have questions regarding the grant or process, please contact Adriane Jaynes.

Contact: Adriane Jaynes
Energy Programs Coordinator, INCOG
2 W. Second St., Ste. 800, Tulsa, OK 74103
(918) 579-9494

ALL PROPOSALS MUST BE SIGNED.

Section 1 – Applicant Information

1. Project Title (10 words or less):		2. Date Submitted: (mm/dd/yyyy)	
		3. Date & Time Received by INCOG: (to be completed by INCOG; leave this area blank)	
4. Applicant Information			
Legal Name of Entity:		Organizational Unit:	
		Department:	
Street Address:		Division:	
Mailing Address (if different):			
City:		Name and telephone number of person to be contacted on matters involving this application	
State:	Zip:	Prefix:	
5. Employer Identification Number (EIN):		First Name:	Middle Initial:
6. Proposed Project		Last Name:	Suffix:
Start Date: (mm/dd/yyyy)	Ending Date: (mm/dd/yyyy)		
7. Descriptive Title of Applicant's Project:		Email:	
8. Location of Project (if different from Street Address above)		Phone: (including Area Code)	
Physical Address:		Fax: (including Area Code)	
City:	State:	Zip:	
9. Project Manager:		10. Type of Applicant:	
Prefix:	First Name:	<input type="checkbox"/> A. County	
Last Name:	Suffix:	<input type="checkbox"/> B. Municipal	
Email:		<input type="checkbox"/> C. Township	
Phone:		<input type="checkbox"/> D. Public School District	
		<input type="checkbox"/> E. Other (Specify)	
11. Assurances: To the best of my knowledge and belief, all data in this application is true and correct. The document has been duly authorized by the governing body of The Applicant, and The Applicant will comply with the attached Assurances.			
a. Authorized Representative			
Prefix	First Name	Middle Name	
Last Name	Suffix		
b. Title		c. Phone (including Area Code)	
d. Email		e. Fax (including Area Code)	
f. Signature of Authorized Representative		g. Date Signed (mm/dd/yyyy)	

Section 2 – Project Information

A.	Category in which you are applying (check all that apply): <input type="checkbox"/> Idle Reduction <input type="checkbox"/> Alternative Fuel Infrastructure <input type="checkbox"/> Alternative Fuel/Hybrid Vehicles <input type="checkbox"/> Other (describe): _____			
B.	Amount of Grant Request: \$		C. Total project cost, including planning, engineering, design and construction: \$	
D.	Matching Funds Total match: \$ _____ Match Percent (<i>match dollars divided by total project cost</i>): _____ %			
E.	School Bus Replacement <i>If project does not involve the replacement of school buses, skip to F.</i>			
Average number of district elementary, middle school and high school students riding the school buses on a daily basis:				
Total district enrollment:		# elementary students	# middle school students	# high school students
Entity owning the buses:				
Entity operating and maintaining the fleet:				
Fleet replacement interval:				
F.	<p style="text-align: center;">Project Description (be brief but complete)</p> <p>In 200-300 words, please briefly summarize the proposed project, including information related to idle reduction technologies, alternative fuel vehicle refueling/recharging capacity (location if any) and description of project visibility and public awareness.</p> <p>If the project involves the installation of alternative fuel infrastructure, please provide the address of the proposed location and attach an 8½" x 11" map showing location and layout of any proposed fueling infrastructure facilities. The map should clearly indicate the location/placement of fueling islands, compressors, charging stations, storage tanks, dispensers, significant electrical service, etc. that will be built or expanded with the proposed funding. <u>Existing facilities and future facilities adjacent to the proposed project should be clearly distinguished on the map and reproducible in black and white.</u> Label as <i>Infrastructure Site Map</i> and attach to application.</p>			

G.	<p>How will this project contribute to improving air quality?</p> <p>For assistance with this question, fuelconomy.gov, or the GREET and AFLEET calculators will assist in performing an analysis of the air quality benefits, and the total cost of ownership of proposed the project. If you are unsure which tool is the best for your project, please contact us at ajaynes@incog.org or 918.579.9494.</p>
H.	<p>How many miles do you expect this vehicle(s) to travel per year? For off-road vehicles, how many hours of runtime to you anticipate per year? For idle reduction projects, how many hours do the vehicles currently idle per week? How will the proposed idle reduction technology impact the total idle hours?</p>
I.	<p>What is the project timeline? Include anticipated start date, term of construction or implementation and proposed completion date, or anticipated vehicle acquisition date. How will the applicant ensure that the project is implemented in the timeframe requirement of this solicitation?</p>

Section 3 – Project Impact and Viability

A.	<p>Existing Fleet <i>For the following questions, <u>do not</u> include vehicles such as golf carts, which are not manufactured primarily for on-road use. <u>Do</u> include heavy-duty equipment such as refuse haulers, and street sweepers.</i></p>													
	<table border="1"> <tr> <td data-bbox="228 268 297 302">A.1.</td> <td data-bbox="297 268 1498 302">What is the total number of on-road vehicles currently in applicant fleet?</td> </tr> <tr> <td data-bbox="228 302 297 336">A.2.</td> <td data-bbox="297 302 1498 336">What is the total number of on-road <i>alternative fuel vehicles</i> currently in application fleet?</td> </tr> <tr> <td data-bbox="228 336 297 369">A.3.</td> <td data-bbox="297 336 1498 369">What is the total number of on-road <i>hybrid-electric vehicles</i> currently in applicant fleet?</td> </tr> <tr> <td data-bbox="228 369 297 531">A.4.</td> <td data-bbox="297 369 1498 531"> <p>If fleet includes alternative fuel vehicles, how many gasoline gallon equivalents (GGEs) of fuel by alternative fuel type were used during the past fiscal year?</p> <table border="1"> <tr> <td data-bbox="302 474 456 508">CNG</td> <td data-bbox="456 474 610 508">LPG</td> <td data-bbox="610 474 764 508">E85</td> <td data-bbox="764 474 919 508">B20</td> <td data-bbox="919 474 1494 508">Electric</td> </tr> </table> </td> </tr> </table>	A.1.	What is the total number of on-road vehicles currently in applicant fleet?	A.2.	What is the total number of on-road <i>alternative fuel vehicles</i> currently in application fleet?	A.3.	What is the total number of on-road <i>hybrid-electric vehicles</i> currently in applicant fleet?	A.4.	<p>If fleet includes alternative fuel vehicles, how many gasoline gallon equivalents (GGEs) of fuel by alternative fuel type were used during the past fiscal year?</p> <table border="1"> <tr> <td data-bbox="302 474 456 508">CNG</td> <td data-bbox="456 474 610 508">LPG</td> <td data-bbox="610 474 764 508">E85</td> <td data-bbox="764 474 919 508">B20</td> <td data-bbox="919 474 1494 508">Electric</td> </tr> </table>	CNG	LPG	E85	B20	Electric
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B.	<p>Alternative Fuel Infrastructure <i>If not proposing alternative fuel infrastructure project, skip to question G. Does the proposed alternative fuel infrastructure project include a public-access component or multi-fleet component? Please describe and explain.</i></p>													
C.	<p>Does the alternative fuel infrastructure involve a public/private partnership agreement?</p> <p style="text-align: center;"><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, please attach the agreement to this application and Label as <i>Public/Private Partnership Agreement</i>.</p>													
D.	<p>What is the anticipated utilization of the proposed alternative fuel infrastructure? How many vehicles will it serve? What is the anticipated annual fuel throughput (fuel sold/used) at proposed infrastructure? Will it be publicly accessible, or for private use only?</p>													
E.	<p>Please describe the fueling capacity. If electric charging station(s), how many charging stations will be purchased, how many ports installed, what type of charging ports, what level of charging will be installed? If CNG, what is the storage capacity, time fill or quick fill, how many compressors, what is the diameter and pressure of the pipeline you will be accessing how many dispensers? If LPG, what is the storage capacity?</p>													
F.	<p>How will the alternative fueling infrastructure be serviced or repaired? Do you have certified alternative fuel vehicle technicians and/or certified compressor technicians on staff? Please explain and describe.</p>													

G.	In the absence of future grant funding, how will the applicant entity sustain its commitment to continued incorporation of clean fuel technologies in its fleet? Please explain and describe.
H.	<p>Does your entity have a written Alternative Fuel Vehicle Replacement Program that has been approved the city council, board of commissioners, school board, or appropriate governing body?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p>If yes, please attach to this application and Label as AFV Replacement Program. Attach to application.</p>
I.	What obstacles or problems must be overcome to implement this project?
J.	What will make this project a success?
I.	Other comments. Is there anything else that INCOG should know about this project?

Section 4 – Project Budget and Cost Estimates

Project cost estimates (**Use this table as a summary only** and attach to this application form a detailed, itemized breakout of the project budget supported by itemized price quotes - see item A.*)

Item	Amount
Engineering & Design	\$
Utility Relocation	\$
Construction	\$
Equipment	\$
Contractual	\$
Other (describe):	\$
Other (describe):	\$
Other (describe):	\$
Total	\$
Local share ¹ (see Note below. Must equal at least a minimum 20 percent of Total)	\$
Federal Share ² (see Note below. Cannot exceed 80 percent of Total)	\$

Note:

1 Eligible public sector projects can be funded at a ratio of up to:

- 80 percent federal funds and 20 percent local share for installation costs and capital investments in alternative refueling/recharging infrastructure
- 80 percent federal funds and 20 percent local share for qualified dedicated light duty and medium duty AFVs, hybrid vehicles and commercial mowers. For vehicles not serving a “dominant transportation function” only the incremental costs are eligible.
- 80 percent federal funds and 20 percent local share for qualified dedicated heavy duty AFVs, hybrid trucks, and hydraulic hybrid trucks. For vehicles not serving a “dominant transportation function,” only the incremental costs are eligible.

2 As above: Total project cost ratios cannot exceed 80 percent federal funding. Vehicle price for new purchases, not including the incremental value, may be used for local share but in all cases must equal at least 20 percent of the total project cost.

A.*	<p>1. Attach to this application <u>current</u> (within the last 3 months) itemized price quotes from vendors/contractors and any other pertinent documents supporting the project budget. If a project has multiple aspects such as infrastructure development, the price quotes should be itemized by the appropriate categories.</p> <p>2. Label itemized quotes and detailed budget as <i>Project Budget File</i>.</p>
B.	Please disclose, itemize and explain any other awards, incentives, rebates, transferred tax credits or pass-through incentives that will be utilized in this project.
C.	What is/are the source(s) of local share funds? <i>Please note that funds used for the local share may not be of federal origin.</i>
D.	<p>Does your entity currently have any <u>open or pending loans or grants</u> of any kind for alternative fuel or hybrid vehicles, or alternative fuel infrastructure?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>If yes, please briefly describe the alternative fuel projects for which you currently have open grants or loans:</i></p>
E.	<p>Does your entity have any open or pending grants or loans related to the project for which this application is being submitted?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p> <p><i>If yes, please explain:</i></p>

Section 5 – Assurances & Resolutions

<p>Please affirm your understanding of the following project conditions by initialing in the spaces provided:</p>	
<p>Initial each shaded block below ↓</p>	
	<p>The project sponsor or private partner must provide matching dollar funding of a minimum of 20% cost share for eligible expenses.</p>
	<p>This is a reimbursement program. The applicant organization must finance the project until Federal reimbursement funds are available.</p>
	<p>Projects involving CNG and LPG vehicles must provide an EPA Certificate of Conformity for each vehicle purchased or converted with CMAQ funds in order to receive reimbursement.</p>
	<p>If vehicles are acquired with CMAQ funds, they must replace less efficient vehicles. The less efficient vehicles must be removed from the fleet. Proof of removal must be provided to INCOG to receive reimbursement.</p>
<p>I hereby certify that the statements contained within the foregoing Application for CMAQ Grant Funds are true and complete to the best of the applicant's knowledge and understanding.</p>	
<p>Name of Applicant Organization</p>	
<p>Name of Authorized Official</p>	<p>Title</p>
<p>Signature</p>	<p>Date</p>

Attachments

Attachment A: GGE Conversion Factors

Converting Alternative Fuel Units to Gasoline Gallon Equivalents (GGE)

Every fuel has different energy density. The most common way to measure how much petroleum is displaced through the use of an alternative fuel is to convert the energy density of an alternative fuel unit to the energy density in a gasoline gallon.

The table below lists the GGE calculation for each alternative fuel. To perform a conversion, choose the GGE calculation for the appropriate fuel type. Next, place the number of fuel units used into the equation, and multiply that number by the proper conversion factor.

Example:

If you used 115 gallons of B20, that's the equivalent of 128.91 gallons of gasoline (GGE). The equation would be: $115 \text{ gal B20} \times 1.121 = 128.91 \text{ GGE}$

Fuel Type	Fuel Measurement Unit	Conversion Factor	GGE Calculation
B100	Gallons	1.066	B100 gal x 1.066
B20	Gallons	1.121	B20 gal x 1.121
CNG	Gallons @ 2400 psi	0.191	CNG gal (@ 2400 psi) x
CNG	Gallons @ 3600 psi	0.287	CNG gal (@ 3600 psi) x
CNG	Gallons @ 3000 psi	0.239	CNG gal (@ 3000 psi) x
CNG	Hundred cubic feet	0.877	CNG ccf x 0.877
Diesel	Gallons	1.155	Diesel gal x 1.155
E85	Gallons	0.734	E85 gal x 0.734
Electricity	kWh	0.031	Electricity kWh x 0.031
Gasoline	Gallons	No conversion needed	Gasoline gal
Hydrogen (kg)	kg	1.019	H ₂ kg x 1.019
Hydrogen (gallons)	Gallons	0.256	H ₂ gal x 0.256
LNG	Gallons @ 14.7 psi and -234°F	0.666	LNG gal x 0.666
LPG	Gallons	0.758	LPG gal x 0.758

Source: U.S. Dept. of Energy, Office of Energy Efficiency and Renewable Energy

Attachment B: Vehicle Classification Chart

Vehicle Classifications				
Class 1 - 6,000 lbs or less				Light Duty
 <i>Minivan</i>	 <i>Cargo Van</i>	 <i>SUV</i>	 <i>Pickup Truck</i>	
Class 2 - 6,001 to 10,000 lbs				Light Duty
 <i>Minivan</i>	 <i>Cargo Van</i>	 <i>Full-size Pickup</i>	 <i>Step Van</i>	
Class 3 - 10,001 to 14,000 lbs				Medium Duty
 <i>Minivan</i>	 <i>Box Truck</i>	 <i>City Delivery</i>	 <i>Heavy-Duty Pickup</i>	
Class 4 - 14,001 to 16,000 lbs				
 <i>Large Walk-In</i>	 <i>Box Truck</i>	 <i>City Delivery</i>		
Class 5 - 16,001 to 19,500 lbs				Medium Duty
 <i>Bucket Truck</i>	 <i>Large Walk-In</i>	 <i>City Delivery</i>		
Class 6 - 19,501 to 26,000 lbs				Medium Duty
 <i>Beverage Truck</i>	 <i>Single-Axle</i>	 <i>School Bus</i>	 <i>Rack Truck</i>	
Class 7 - 26,001 to 33,000 lbs				Heavy Duty
 <i>Refuse</i>	 <i>Furniture</i>	 <i>City Transit Bus</i>	 <i>Truck Tractor</i>	
Class 8 - 33,001 lbs or more				Heavy Duty
 <i>Cement Truck</i>	 <i>Truck Tractor</i>	 <i>Dump Truck</i>	 <i>Sleeper Cab</i>	

Attachment C: Additional Resources

1. [U.S. DOE Clean Cities 2016 Vehicle Buyer's Guide](#)
2. [Clean Cities Guide to Alternative Fuel and Advanced Medium- and Heavy-Duty Vehicles](#)
3. [Business Case for Compressed Natural Gas in Municipal Fleets: *National Renewable Energy Laboratory Technical Report*](#)
4. [EPA Information regarding alternative fuel conversions, including lists of vehicles eligible for CNG and LPG conversion](#)
5. [Alternative Vehicle Make/Model Search](#)
6. [U.S. DOE and EPA Vehicle Comparison and Fuel Economy Guide](#)
7. [U.S. DOE Clean Cities](#)
8. [U.S. DOE Alternative Fuels & Advanced Vehicles Data Center](#)
9. [Alternative Fuel Life-Cycle Environmental and Economic Transportation \(AFLEET\) Tool](#) to estimate petroleum use, greenhouse gas emissions, air pollutant emissions, and cost of ownership of light-duty and heavy-duty vehicles using spreadsheet inputs.