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California Environmental Protection Agency
Board Item #
https://www.arb.ca.gov/lispub/comm/bcsubform.php?listname=cmpsupplementfunds18&comm_period=A
Air Resources Board, Byron Sher Auditorium, 1001 I Street, Sacramento, California 95814
Kyle Goff, Air Pollution Specialist, Incentives Oversight Section (916) 324-1988
Doug Thompson, Manager, Incentives Oversight Section (916) 322-6922

April 26, 2018
VIA Electronic Submission
From/ To: IdleAir submission to CA EPA
RE: Community Air Protection Funds Supplement (CAPFS) to the Carl Moyer Memorial Air Quality Standards Attainment Program 2017 Guidelines

Dear Mr. Goff, Mr. Thompson, and ARB Members:

Convoy Solutions, LLC d/b/a IdleAir appreciates the opportunity to submit our ideas in furtherance of CA EPA's plans to reduce smog-forming emissions from mobile sources along highway corridors. We welcome the opportunity to participate in ongoing discussions about how our resources can assist in reaching your important objectives.

IdleAir owns, operates, and staffs 45 truck stop electrification (TSE) facilities nationally that have helped truck drivers save over sixty million gallons of fuel during their overnight stays. Although our target audience has traditionally been trucks with conventional diesel engines, our infrastructure, network, travel center and fleet relationships provide a valuable platform to quickly and cost effectively deploy adaptations to help service heavy duty trucks in California (diesel/ ZEV/ CNG), electric Transportation Refrigeration Units (eTRUs), and passenger vehicles in furtherance of state plans. Not only would IdleAir's resources help facilitate timely and cost effective execution of Carl Moyer and CAPFS funded projects, but an even larger amount of indirect benefits would result from IdleAir's other diesel emissions mitigation services.

We understand the Guidelines Supplement would:
- Reduce the cost of participation in the Program by grant applicants;
- Increase funding for infrastructure projects, including freight facilities;
- Enable funding for more types of transport refrigeration units and other technology.

And that this year's Community Air Protection funds will be available in the following areas:|
- $107.5 million in the South Coast Air Quality Management District
- $80 million in the San Joaquin Valley Air Pollution Control District
- $50 million in the Bay Area Air Quality Management District
- $12.5 million in other California air districts

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We are encouraged to know that Community Air Protection funds stem from California Climate Investments, which is a Cap-and-Trade effort to help make CA communities healthier.

IdleAir is pleased to share with you our experience using government grant programs to create highly cost effective and impactful air quality projects. We hope this feedback will also help inform your decision-making about CAPFS environmental fund allocations.

Fig.1: CR England Terminal - TSE Bobtail Row

Fig.2: 20 kW Solar Array Pilot #412 - White Pine TN

TRUCK STOP ELECTRIFICATION AND THE VOLKSWAGEN SETTLEMENT

When the EPA solicited comments on its draft settlement with VW, IdleAir was proud to engage long haul truck drivers and fleets in the policy making process. The Department of Justice indicated that half of all VW-related comments were from our customers. Our site staff helped drivers fill out paper comments, and service modules had an interface to submit electronic copies. Their message was clear, "I am a professional truck driver. Too often, I must idle my truck engine overnight to comply with DOT Hours of Service requirements while maintaining a safe and comfortable environment for resting. I would gladly use more truck stop electrification services if there were more available in the places I rest overnight or if I had vouchers to help pay for the service." TSE also received support from both sides of the aisle - with endorsements from Senators Wyden and Merkley, and Representatives Duncan and Bonamici, to name a few (see attached). Carl Moyer and CAPFS funded projects could also include TSE as a highly effective mobile source pollution reduction method - and we encourage decision-makers to consider this option within the state's pollution mitigation plans.

Fig. 3: IdleAir Customer

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ENVIRONMENTAL BENEFITS AND COST EFFECTIVENESS

IdleAir saved drivers and fleets nearly a million gallons of diesel last year. Network operations in 2016 offset over 907,000 gallons of diesel pollution, reducing total diesel emissions by over 9,615 metric tons (51mt of CO, 9,432mt of CO2, 122mt of NOx, 3.34mt of PM, and 6.21mt of VOCs). With NO upfront cost, our customers recognized that idling is a waste, even as fuel dropped below $2 per gallon. Both the US EPA and the US DOT rate idle mitigation/ truck stop electrification as a highly cost effective way to reduce NOx and other transportation-related pollutants (Figure 4, p.4). The US Department of Transportation, through the Federal Highway Administration[1], as well as EPA[2], separately rate truck stop electrification as the single most cost effective solution to mitigate NOx emissions. A 2015 DOT report found on-road idle reduction as the most cost effective technology. The EPA report rates TSE as the most cost effective at a median $1.7k/ton of NOx offset (scoring diesel retrofit at a median cost of $5,950/ton of NOx). IdleAir's sales data demonstrates that even better cost effectiveness can be achieved if limited vouchers are distributed to truck drivers for higher utilization of existing infrastructure during the current period of relatively inexpensive fuel.

IDLEAIR ON ALREADY IDENTIFIED LOCATIONS & WITH EXISTING LAND AGREEMENTS

IdleAir enjoys master leases with two of the three largest truck stop chains in the country, and customer agreements with over 750 fleets. The fleet agreements address utilization at public truck stops and some include future development on fleet terminals. In contemplation of the Carl Moyer and CAPFS opportunities, IdleAir is refreshing its map of prospective locations in California to add to our growing national network. Table 1 (p.5) shows sample new projects to be developed, with estimated annual benefits.

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[1] National Research Council (U.S.) Committee for the Evaluation of the Congestion Mitigation and Air Quality Improvement Program. The Congestion Mitigation and Air Quality Improvement Program: Assessing 10 years of Experience / Committee for the Evaluation of the Congestion Mitigation and Air Quality Improvement Program.
Available http://onlinepubs.trb.org/onlinepubs/sr/sr264.pdf. Accessed July 6, 2016.
See also. United States Department of Transportation. Congestion Mitigation and Air Quality (CMAQ) Improvement Program Cost Effectiveness Tables Development and Methodology. Available http://www.fhwa.dot.gov/environment/air_quality/cmaq/reference/cost_effectiveness_tables/report/costeffreport.pdf. Accessed July 13, 2016.

[2] Available https://www3.epa.gov/otaq/stateresources/policy/general/420b07006.pdf. Accessed August 5, 2016.

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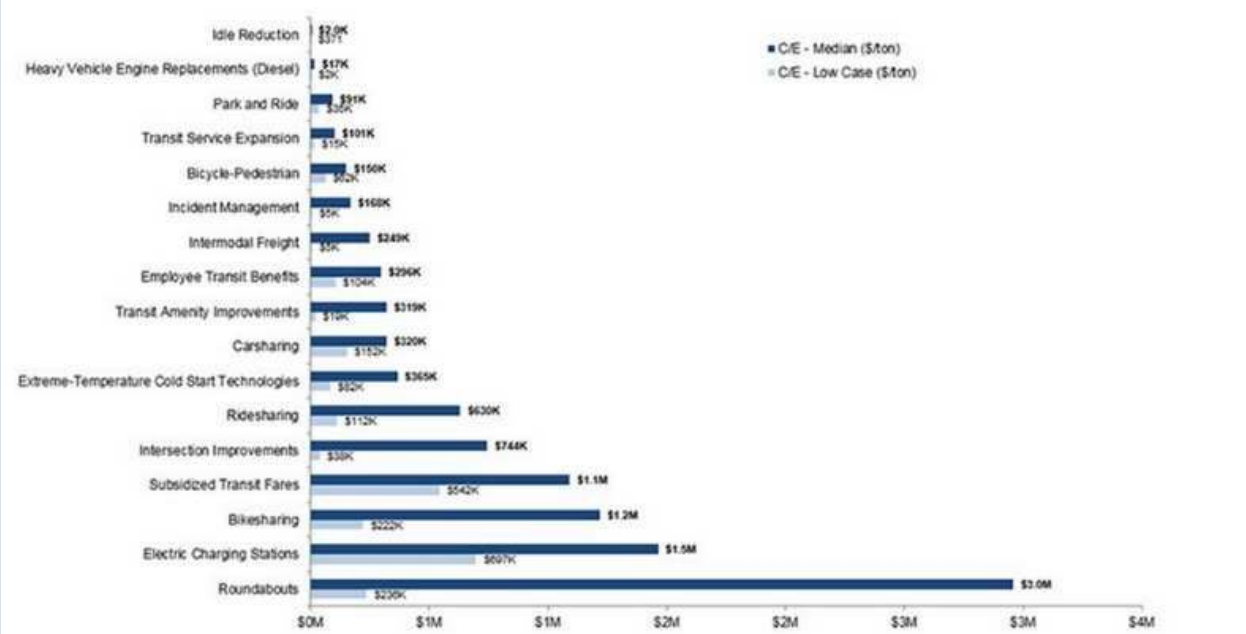
Figure 4: Median Cost-Effectiveness Estimates (Cost/ Ton) of NOx Emission Reductions



https://www.fhwa.dot.gov/environment/air_quality/cmaq/reference/cost_effectiveness_tables/

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Table 1: Proposed New TSE Projects

California								
Location Type	**# potential new locations**	**# TSE spaces**	**Cities**	**Counties**	**Hwy.**	**Est. Annual Diesel Offsets (gallons)**	**Est. Annual CO2 Offsets (tons)**	**Est. Annual NOx Offsets (tons)**
Public Travel Centers	3 sites	90	Hesperia, Chowchilla, Barstow	Madera, San Bernardino	I-99, Hwy. 395, I-15	213,525	2248	29.91
Private Fleet Terminals	4 sites	80	Pomona, Bakersfield, South Gate, Colton	Los Angeles, Kern, San Bernardino	Hwy. 60/ 71, Hwy. 99, I-710, I-805, I-10	189,800	1998	26.58
eTRU - Refrigerated Container Units	2 sites	16	TBD	TBD	TBD	37,960	400	5.32
	draft total budget		**$1,788,000**		**total gallons per year offset**	**441,285**		

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Table 2 illustrates the historic IdleAir TSE network in California, and associated TSE pollution reduction totals 2002-2016. IdleAir is working to re-deploy TSE facilities locations, to build upon the work started by our predecessor IdleAire Technologies, which offset over 7-million gallons of diesel and 948 tons of NOx in California within eight years of operations. Two mega-fleets with successful IdleAir terminals elsewhere in the country have invited IdleAir to build on their California terminals which happen to be located in areas of nonattainment.

Table 2: IdleAir CA Sites - Historic and 2016/ Totals to Date

California 2002-2016				Pollutant/ Emission Reductions - To Date (Metric Tons)							
					CO	CO2	NOx	PM	VOC	Total Emission Reductions (MT)	
Site ID	Location Name	2016 Total	Total Hours to Date 2002-Present	Hourly Factor (Grams)	56.14	10,397	135	3.68	6.84		Fuel Savings (Gallons)
CA0007	Bruce's Truck Stop – Bakersfield		557,197		31.3	5,793.2	75.2	2.1	3.8	5,905.5	557,197
CA0008	Petro #46 - Los Banos		464,386		26.1	4,828.2	62.7	1.7	3.2	4,921.9	464,386
CA0009	Love's #223 -Ripon	3,402	921,385		51.7	9,579.6	124.4	3.4	6.3	9,765.4	921,385
CA0010	Love's #230 -Lost Hills		109,609		6.2	1,139.6	14.8	0.4	0.7	1,161.7	109,609
CA0024	Rotten Robbie #59 -Santa Nella		64,904		3.6	674.8	8.8	0.2	0.4	687.9	64,904
CA0026	Pilot #365 -Madera		410,491		23.0	4,267.9	55.4	1.5	2.8	4,350.7	410,491
CA0039	TA #041 - Coachella		411,736		23.1	4,280.8	55.6	1.5	2.8	4,363.8	411,736
CA0040	Petro #27 - Wheeler Ridge		409,250		23.0	4,255.0	55.2	1.5	2.8	4,337.5	409,250
CA0042	TA #026 - Ontario East		1,321,244		74.2	13,737.0	178.4	4.9	9.0	14,003.4	1,321,244
CA0043	TA #162 - Ontario West		1,027,173		57.7	10,679.5	138.7	3.8	7.0	10,886.7	1,027,173
CA0252	TA #040 - Corning		282,140		15.8	2,933.4	38.1	1.0	1.9	2,990.3	282,140
CA0260	TA #57 - Redding		116,724		6.6	1,213.6	15.8	0.4	0.8	1,237.1	116,724
CA0263	TA #163 - Santa Nella		387,975		21.8	4,033.8	52.4	1.4	2.7	4,112.0	387,975
CA0285	TA #227 - Barstow		542,316		30.4	5,638.5	73.2	2.0	3.7	5,747.8	542,316
		3,402	7,026,529	Historic Totals	394.5	73,054.8	948.6	25.9	48.1		
						Total All Emissions Reductions to date (metric tons)				74,471.8	
								Total All Fuel Savings to date (Gallons)			7,026,529

TRUCKSTOP ELECTRIFICATION IMPROVES AIR QUALITY IN DISADVANTAGED COMMUNITIES

Truck Stops are often located near disadvantaged neighborhoods. IdleAir studied this by analyzing the economic status and minority composition within a 1.5 mile radius of 15 current Texas locations. The census data showed that those populations consist of 65% more minorities and have a per capita income 24% lower than the statewide average. There is a close correlation between truckstop siting and disadvantaged communities. Accordingly, when truck stops emit fewer emissions, the communities that benefit the most by the reduction of local pollutants tend to be the communities that were most vulnerable to them in the first place.

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IdleAir - Current TX Locations - Local Community Demographics - Within 1.5 Mile Radius					
IdleAir Location Name	Address	City	Hwy./ Exit	Minority %	Per Capita Income
Conoco - Baytown	10403 Interstate 10E #A	Baytown	I-10, Exit 797	50%	$ 29,839
Love's #401 - Baytown	1703-D East Fwy	Baytown	I-10, Exit 789	67%	$ 21,220
Flying J - Dallas	34100 LBJ Freeway	Dallas	I-20, Exit 472	99%	$ 13,887
DFW Oil/ Exxon	8181 S. Lancaster Rd.	Dallas	I-20, Exit 470	95%	$ 15,162
Love's #214 - El Paso	1302 Horizon Blvd.	El Paso	I-10, Exit 37	98%	$ 10,042
Flying J # 728 - El Paso	1301 Horizon Blvd.	El Paso	I-10, Exit 37	98%	$ 10,042
Pilot #434 -Fort Worth	2400 Alliance Gateway	Ft Worth	I-35, Exit 65	29%	$ 36,669
Cal Ark - Laredo	4431 Pan American Blvd.	Laredo	FM 1472 Mines Rd.	89%	$ 17,852
Con-Way Truckload Terminal	14610 Mines Road	Laredo	I-35, Exit 8	92%	$ 18,535
Werner Enterprises Terminal	1201 Carrier Dr.	Laredo	I-35, Exit 12	93%	$ 18,795
CR England - Laredo	8422 Amparan Rd.	Laredo	I-35 Exit 8	92%	$ 18,740
Flying J - Laredo	1011 Beltway Pkwy.	Laredo	I-35 & Exit 13	93%	$ 18,795
Pilot #377 -Laredo	1101 Uniroyal Drive	Laredo	I-35 & Exit 13	93%	$ 18,795
TSI - Mesquite	3900 Forney Rd.	Mesquite	I-80 & S.Town E.Blvd.	72%	$ 17,799
Pilot #431 -Orange	2205-B Hwy 62	Orange	I-10, Exit 873	12%	$ 27,130
Pilot #432 -Robinson	8055 S I-35	Robinson	I-35, Exit 328	32%	$ 29,634
TOTAL				*75%*	*$ 20,184*
Source: EJSCREEN ACS Summary Report, July 2016 *Compare with state-wide TX: Minority 20.3% and per capita $ 26,513.*					

Table 3: Site Demographics

eTRU

IdleAir has traditionally focused on main engine idle reduction. Refrigerated loads are cooled by a diesel compressor within a Transport Refrigeration Unit (TRU) that idles 24-hours a day and, because they are not subject to the same emissions controls, emit more NOx than the main engine. TRUs are increasingly offered with standby electric power capability (eTRUs) - so that when stationary, they can be plugged in and powered down. This technology was installed at IdleAir's new location in Lebanon Ohio, and will be installed in California and other locations where practical. This would be appropriate at public truck stops, refrigerated fleet terminals and distribution centers. IdleAir's largest fleet customer is also the largest refrigerated fleet in the world.

Within the first two years of leveraged funding TSE deployment, IdleAir could open an additional 9 new TSE locations in California, with a total budget of $1.79mm. *We expect these new projects to save over 441,000 gallons of diesel fuel per year.* It would be our pleasure to explore those metrics with you in greater detail. Thank you for your consideration, and we look forward to following up.

Sincerely,

--

Yale Klat, Convoy Solutions LLC - Proud Providers of the IdleAir System

Congress of the United States

Washington, DC 20515

October 6, 2016

John C. Cruden Esq.
Assistant Attorney General
Environment and Natural Resources Division
U.S. Department of Justice

RE: Proposed Settlement with Volkswagen

Dear Assistant Attorney General Cruden:

Thank you for your work finalizing the settlement agreement between Volkswagen and the United States. I am writing to request you consider including truck stop electrification as an eligible mitigation activity within Appendix D-2.

Many long haul truck drivers idle their engines during overnight stays in order to be safe and comfortable. The Argonne National Laboratory estimates that rest-period idling in the United States expends about one billion gallons of diesel and emits 55,000 tons of nitrogen oxides (NOx) each year. As an alternative to idling, long-haul truck drivers can use Truck Stop Electrification (TSE), an EPA SmartWay verified technology. A recent report prepared for the Federal Highway Administration showed that idle reduction strategies, including truck stop electrification, are the most cost-effective activities for mitigating mobile sources of NOx emissions.

TSE is eligible for funding under the proposed settlement's DERA program option. However, my constituents have expressed concerns that with low fuel prices and the DERA federal cost share, there is insufficient incentive to build new TSE infrastructure.

If permissible under existing rules and regulations, please consider including TSE infrastructure and TSE vouchers as eligible mitigation activities under Appendix D-2 of the settlement. This would give beneficiaries of the Mitigation Trust more flexibility to achieve the settlement's goal of improving air quality by reducing harmful diesel emissions.

Thank you for your consideration.

Sincerely,

RON WYDEN
United States Senator

JEFF MERKLEY
United States Senator

SUZANNE BONAMICI
Member of Congress

Cc: Gina McCarthy, Administrator, U.S. EPA
Cynthia Giles, Assistant Administrator, Office of Enforcement and Compliance Assurance, U.S. EPA
Janet McCabe, Acting Assistant Administrator, Office of Air Quality and Radiation, U.S. EPA
Phillip Brooks, Director, Air Enforcement Division, U.S. EPA
Christopher Grundler, Director, Office of Transportation and Air Quality, U.S. EPA

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AVIATION

OVERSIGHT AND GOVERNMENT REFORM
SUBCOMMITTEES:
NATIONAL SECURITY
TRANSPORTATION AND PUBLIC ASSETS

Congress of the United States
House of Representatives
Washington, DC 20515-4202

October 10, 2016

John C. Cruden Esq.
Assistant Attorney General
U.S. Department of Justice
950 Pennsylvania Avenue, NW
Washington, DC 20530-0001

RE: Proposed Settlement with Volkswagen

Dear Assistant Attorney General Cruden:

As the Department of Justice take steps to finalize settlement between the U.S. government and Volkswagen, I am writing to request that the final settlement provide maximum flexibility for States and Native American tribes to consider allocating some of the funds they will receive through the Environmental Mitigation Trust to truck stop electrification (TSE). Specifically, I ask that the settlement expressly list truck stop electrification as an eligible mitigation activity within Appendix D-2, along with the nine other activities that already include various forms of diesel retrofits and the marine equivalent of truck stop electrification.

Most long haul truck drivers idle their engines during overnight stays in order to maintain a safe and comfortable interior environment. This practice takes place on a large scale and has a disproportionate impact on disadvantaged communities where truck stops and fleet terminals tend to be located. The Argonne National Laboratory estimates that rest-period idling wastes about one billion gallons of diesel and results in the emission of about 55,000 tons of nitrogen oxides (NOx) released annually in the U.S.

Truck Stop Electrification, an EPA SmartWay verified technology, provides long-haul truck drivers an alternative to idling their diesel engines during their overnight stays. The EPA rates Truck Stop Electrification as the single most cost effective activity to mitigate mobile sources of NOx emissions (less than one third of the cost per ton eliminated through diesel retrofits). Significant NOX mitigation can be achieved through (1) installation of new TSE locations; and (2) TSE vouchers for truck drivers to encourage more truckers to use existing TSE facilities.

While TSE is eligible for funding under the proposed settlement's Diesel Emissions Reduction Act (DERA) program option, I am concerned that some States and Tribes will decline or minimize use of the DERA option.

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In addition, with current fuel prices so low, the TSE companies have indicated that the current DERA federal cost share provides an insufficient incentive to build new TSE infrastructure in most places. Moreover, should Congress decide not to provide funding for the DERA program, there would be no opportunity to invest VW funds in TSE under the proposed settlement.

Again, I urge you to specifically list TSE infrastructure and TSE vouchers as eligible mitigation activities under Appendix D-2 of the settlement.

This would afford beneficiaries of the Mitigation Trust maximum flexibility to achieve the settlement's goal of improving air quality in disadvantaged communities by reducing harmful diesel emissions. Thank you for your consideration.

With Kindest Regards, I am

Yours Truly,

John J. Duncan, Jr.
Member of Congress

Cc: Gina McCarthy, Administrator, U.S. EPA