

## **Comment 1 for Carl Moyer Memorial Air Quality Standards Attainment Program Guidelines (cmp2017) - Non-Reg.**

First Name: Katherine

Last Name: Wurtz

Email Address: Kwurtz@kewconsultants.com

Affiliation:

Subject: Removing the Operational Requirements for Locomotives

Comment:

The CMP Guidelines currently state that locomotives must be in operation for two years prior to applying for funding. Unfortunately, this requirement excludes many opportunities to upgrade locomotives from unregulated to Tier 4 or better. Owners of locomotives and railroad operators, in the face of this requirement, will place unregulated equipment in-use before considering Tier 4 simply because of the cost differential. IE An unregulated locomotive costs around \$250,000 whereas a new Tier 4 locomotive costs upwards of \$2,000,000. CMP should consider the future emissions benefits of reducing or eliminating this requirement for locomotive projects.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2017-03-20 15:37:51

No Duplicates.

**Comment 2 for Carl Moyer Memorial Air Quality Standards Attainment  
Program Guidelines (cmp2017) - Non-Reg.**

First Name: Thomas

Last Name: Lawson

Email Address: thomas@cngvc.org

Affiliation: California Natural Gas Vehicle Coalition

Subject: CNGVC Comments on Proposed Changes to Moyer Program

Comment:

Please see the attached comments on changes to the Moyer Program.

Thank you.

Attachment: 'www.arb.ca.gov/lists/com-attach/2-cmp2017-VzRVPQZgAidQnQhX.pdf'

Original File Name: CNGVC Comment Letter on Carl Moyer Program changes 4.13.17.pdf

Date and Time Comment Was Submitted: 2017-04-13 19:45:37

No Duplicates.

**Comment 3 for Carl Moyer Memorial Air Quality Standards Attainment  
Program Guidelines (cmp2017) - Non-Reg.**

First Name: Hannah  
Last Name: Goldsmith  
Email Address: hannah@caletc.com  
Affiliation: CalETC

Subject: CalETC Comments Re Proposed Carl Moyer Guideline Amendments  
Comment:

Please find our comments attached.

Attachment: 'www.arb.ca.gov/lists/com-attach/3-cmp2017-WjkbZlQ5ADYAcgdk.pdf'

Original File Name: CalETC Comments Re Carl Moyer Guideline Amendments Final  
Submitted 4-20-17.pdf

Date and Time Comment Was Submitted: 2017-04-20 15:57:02

No Duplicates.

## **Comment 4 for Carl Moyer Memorial Air Quality Standards Attainment Program Guidelines (cmp2017) - Non-Reg.**

First Name: David

Last Name: Greenfader

Email Address: david.greenfader@envisionsolar.com

Affiliation: Envision Solar International, Inc.

Subject: Carl Moyer Funding in Support of Off-Grid Solar EV Charging Infrastructure

Comment:

Carl Moyer Response

Envision Solar enthusiastically supports the electrification of transportation and deployment of EV charging infrastructure to support it. We enthusiastically endorse the expansion of the Moyer Program to include guidelines for funding off-grid solar electric vehicle charging infrastructure. We believe this represents another opportunity for California to continue in the right direction as it supports increased adoption of Electric Vehicles by providing alternative funding for charging infrastructure which isn't grid dependent and one which represents one of the most flexible, cleanest and fastest ways to deploy charging infrastructure in the industry today.

Envision Solar respectfully urges the ARB to ensure that any revision to the Carl Moyer Program integrated renewably generated and stored energy supplies to the EV charging equipment wherever it makes sense - even when that infrastructure is not connected to the grid. Care should be taken to ensure that there is no language in any of the approved plans which prohibits or discourages the use of locally generated renewable sources of energy as a source of electricity for Electric Vehicle charging. Regardless of who owns the infrastructure the plan should allow for use of funds in the deployment of off grid solutions as well as grid connected solutions. Entities should not be financially penalized or otherwise prevented from using off grid solutions to energize EV charging infrastructure if those solutions present the best method of energizing the chargers. There are many compelling arguments in support of the use of locally generated and stored renewable energy to supply EV charging equipment:

1. The civil and electrical upgrades required for grid tied chargers are often very time consuming. Permitting, engineering and other design and integration work can take months putting at risk the aggressive plans California needs to have in place for the necessary charging infrastructure to support the EV adoption we hope to see. Locally generated and stored renewable energy products negate the need for most of the work associated with "make readies" and can be deployed in minutes not months. Caltrans, DGS, OIG, Cal State and many other state and local agencies have experienced these rapid successful deployments.
2. Trenching and other construction work results in negative environmental impacts especially in remote locations. The use of turnkey solar powered products reduces the environmental impact at

host sites in many cases to zero.

3. Construction activities are disruptive to the host sites resulting in negative impacts and unquantifiable additional costs. There are few or no required construction activities associated with the deployment of renewably energized products.

4. Make readies are very expensive. The rapid and impact free deployment of a renewably energized EV charger is often much cheaper than the cost of civil works at a site.

5. Grid tied chargers may contribute to grid instability when used en masse in the future. Locally produced and stored renewably energy not only does not contribute to grid instability but can reduce it.

6. Off-grid solar EV charging is the equivalent of a Strategic Petroleum Reserve for the electric vehicle. The centralized generation and distribution common to utility grids creates significant vulnerability to large scale outages. These outages are currently expensive to businesses and at least inconvenient if not dangerous to the constituency. In the future when transportation is electrified grid outages will no longer be simply inconvenient, they might create the greatest transportation catastrophe yet seen in California's history. The result of a multi hour grid interruption such as we experienced in San Diego in 2012 could paralyze large segments of the travelling public. While considerable thought is being given to intelligently managing charging and shifting loads, all the current solutions still depend on the grid being available. Hurricane Sandy taught us that we might lose the utility grid for days at a time. When that happens, even grid tied EV chargers with local storage will cease to operate after a period of time. Locally generated and stored renewable energy which is not grid connected (or can be islanded) is immune to such interruptions and may offer the only available charging during disasters. It would seem prudent to require that at least 20 percentage of all EV chargers are not dependent on the centralized grid but at a minimum there should be no language preventing entities from taking advantage of these types of solutions when it makes sense to do so.

7. The purpose of California's push to electrify transportation is primarily to reduce GHGs. 60% of the electricity supplied by the grid in California is still carbon based. Renewably energized EV chargers enable 100% emissions free driving rather than "tailpipe emissions free" driving.

In summary, we respectfully urge the ARB to ensure that any revision to Carl Moyer guidelines include language to add locally generated and stored renewable sources of energy whenever possible and to further ensure that there is nothing in the approved plans which might discourage or prohibit such a use.

We believe that a combination of all available sources of clean energy will provide the best solution for EV charging as we move forward. They should not be mutually exclusive. Locally generated and stored renewable energy EV charging products which can also connect to the grid probably offer the greatest security, pollution reduction and long term benefits to the utilities and the rest of the community. We urge the Air Resources Board to ensure that these types of solutions are leveraged wherever possible and to further ensure that the tax payer money is spent on infrastructure which generates the most benefits in both the short and long terms.

We thank you for your consideration of this matter.

Attachment: "

Original File Name:

Date and Time Comment Was Submitted: 2017-04-24 14:08:21

No Duplicates.

**There are no comments posted to Carl Moyer Memorial Air Quality Standards Attainment Program Guidelines (cmp2017) that were presented during the Board Hearing at this time.**