

Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14



albert graham
guest columnist

Back in June of 2012, I wrote about [the development of Electric Vehicles \(EVs\) here in Paris](#) via the Autolib car share program.

Since then, and in talking with many friends here in France about EVs, I have almost without exception encountered the pushback question: “Yes, Albert, but isn’t electric driving just all about driving around in those little toy sized cars”?

Presented with this question, I have had to invariably (until now) concede that most EV models I had knowledge about (other than the Tesla Roadster) tended towards small, low-powered, lightweight frames.

Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14

Frankly, I just hadn't heard much about the big wheel, or "heavy" EVs. I kept telling myself, however, that surely the EV + PV model had to have applications and examples in the larger vehicle, that is, the "heavy" category.

So I set out to look for them. And I must say that I was pleasantly surprised I did not have to go very far to find examples here in France to dismiss this myth.

Plenty of EV "heavies" in France

In fact, I have now found that the "heavy" and "super heavy" EV categories have a life all of their own. There are mini-vans, delivery vans, electric utility trucks, even large, powerful garbage collection trucks, 18-wheel food delivery lorries and passenger buses all silently rolling along on clean, electric energy each and every single day.

And after studying this category more carefully, I now feel that the heavy category of EVs, might just be the one to win over the hearts of EV + PV skeptics and see quicker widespread implementation than the passenger EVs category.

Here is why I think this will be so:

Goodbye to ICE pollution

Heavy and Super Heavy vehicles operating using Internal Combustion Engines (ICE) are a major sources of pollution especially in city centers. The need to address this situation has taken on a very urgent priority.

Corporate budgets are more flexible than personal budgets when it comes to long-term capital investments that show large potential for profitability and payback.

Corporate visibility as a good citizen nowadays is at the forefront of corporate purchasing decisions (whenever possible) in a much stronger way than in personal purchasing decisions.

Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14

The EV and EV+PV solution as applied to heavies is known for:

- Large fuel savings
- Low fleet maintenance cost (versus ICE delivery fleet)
- Zero emission during heavy stop-and-go city center operation
- No “smoke plume” when pulling away from the curb
- Low noise (can operate early in the morning and late evening)

Energy use optimization

Contrary to passenger EVs, most of these heavy vehicles operate on a fixed, set route and schedule which means gone is the pesky “range anxiety” that has hindered personal EV purchases. Plus, with known energy consumption comes the possibility for real energy optimization.

```
{googleAds}<div style="float:right; margin-left: 10px;">
<script type="text/javascript"><!--
google_ad_client = "pub-7703542917199961";
/* 200x200,
created 12/8/09 */
google_ad_slot = "7950368454";
google_ad_width
= 200;
google_ad_height = 200;
//-->
</script>
<script
type="text/javascript"
src="http://pagead2.googlesyndication.com/pagead/show_ads.js">
</script>
</div> {/googleAds}
```

Yes, I can envision a future where fleets of buses and trucks, are out doing their rounds while back at the depot, large solar arrays capture energy and store them in their battery banks. When these heavies get back in the evening, after doing their rounds, they simply plug in and recharge overnight – ready the next morning to go out once again and do their rounds thus beginning the cycle all over again.

Should the sun not shine enough on a particular day there is always the grid that can provide juice. And if all vehicles are charged up with stored energy in the bank, then any excess can be sold back to the grid.

Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14

The time skeptics push EVs around for being “lightweights” is rapidly approaching an end.

Below are some pictures of prominent examples I've run into in France in the Heavy and Super Heavy EV category -->



Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14



Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14



Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14



Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14



Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14



Solar-charged EV 'heavies' will rule the future

Written by Albert Graham, SCD.Com Guest Columnist
Sunday, 20 January 2013 16:14

