



# Monthly Sustainability Newsletter

## CHAIRMAN'S MESSAGE

May 2017, Vol. 1, Issue 4

Dear members, partners, friends and stakeholders. It is my pleasure to introduce the May issue of the monthly sustainability newsletter from the Al-Attiyah International Foundation. In this month's publication, we look at the growing trend in the development of Electric Vehicles including: global sales; recent advancements within the motor industry; key drivers, policies, and measures supporting the growing trend.

At a recent Abu Dhabi Roundtable on 'OPEC – Past, Present and Future', I was asked for my insights on how the shift in emphasis from "peak oil" to "peak demand" could affect the strategy of OPEC countries. In response, I emphasized that it is becoming more and more difficult for anyone to predict future demand-supply balances for oil. However, I further identify a revolution in the road transportation sector, as one main driver that could significantly influence peak oil demand. The road transportation sector currently represents nearly 45% of overall oil demand. A bigger penetration of Electric Vehicles could be the real game-changer, with significant impact on the growth of global oil demand.

In the context of the shifting global energy mix, there is a recognition that the world would still continue to depend on fossil fuels for substantial part of its energy needs into the foreseeable future. However, as environmental issues continue to get more and more importance and the consensus towards the implementation of the Paris Agreement gains more momentum, it is expected that a slow growth of the global oil demand could occur. Advances in the development of Electric Vehicles are particularly relevant.

## THIS MONTH'S HIGHLIGHTS AT A GLANCE

**Growing Global Sales for Electric Vehicles (EVs).**

**Advance of Electric Vehicles within the Motor Industry.**

**Key Drivers for the development of EVs.**

**The Role of Policies and measures.**

## Upcoming Events

**May 22.** CEO Roundtable Series 4.

**Sep 12.** CEO Roundtable Series 5.

**Dec.** CEO Roundtable Series 6.

## Important Announcement

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### CEO Roundtable Series 4

Fossil Fuels and Renewables.  
Leveraging the Growth of Two  
Worlds.

*Date: 22<sup>nd</sup> May 2017*

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### CEO Roundtable Series 5

The Implications of the Paris  
Agreement for Oil and Gas  
Companies in Qatar.

*Date: 12<sup>th</sup> September 2017*

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### CEO Roundtable Series 6

Title to be announced.

*Date: December 2017*



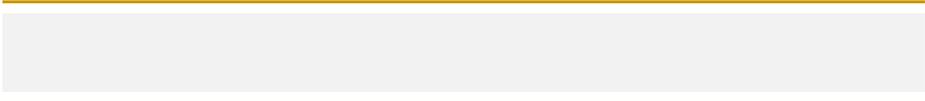
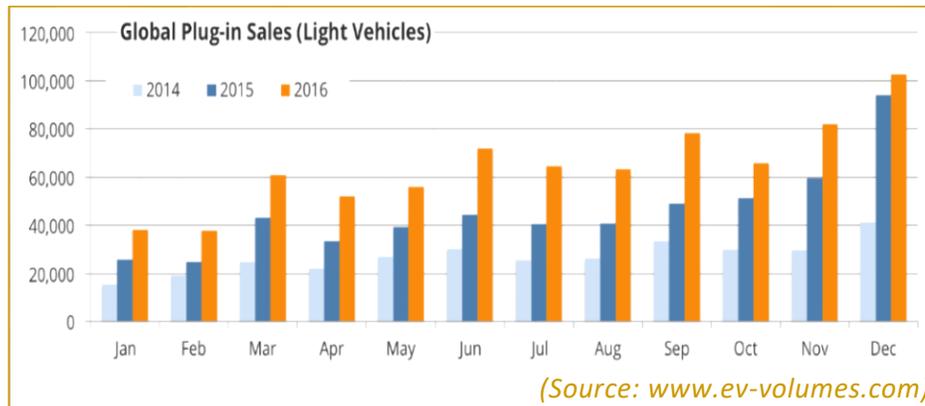
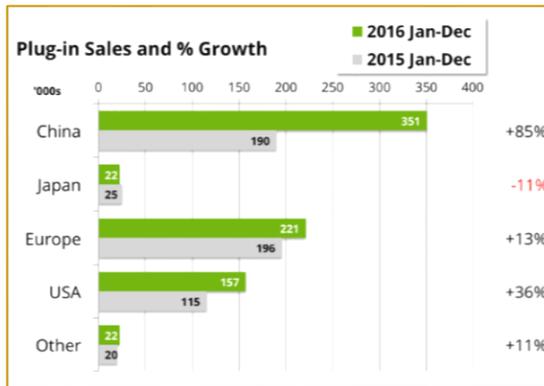
## Growing Global Sales for Electric Vehicles (EVs).

Worldwide plug-in electric vehicle (EV) sales in 2016 were 773,600 units, 42% higher than for 2015. By the end of 2016, the number of Plug-ins on the road passed the 2 million mark, 61% of them are pure EVs and 39% plug-in hybrids (PHEV). China is increasing its significance as a market and as a manufacturing base for "New Energy Vehicles" (Chinese term for electrically chargeable vehicles). It now stands for 45% of all plug-in vehicles sold worldwide. In 2015, this figure was 35%.

Plug-in volumes have more than tripled since 2013 and continuing the trend of last year's growth rate of 42% would mean 8 out of 10 cars sold could be Plug-ins by 2030. It appears that what is

inconceivable today, is not impossible in the near future. While global picture still shows just a current 0.85% market share. In some markets, the share of EVs has risen significantly. Norway had a 24% plug-in share in 2016, Netherlands 5% and Sweden 3.2%.

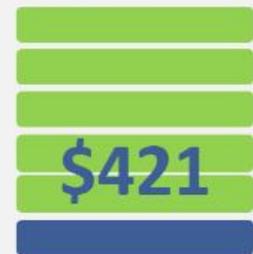
The impact on the vehicle population as a whole is still hardly noticeable in most countries. The global motor vehicle population of cars and trucks has reached 1.4 billion and just 2 million of them can be plugged in, but the sector is developing at a rapid pace. Locations for charging have increased at least 10-fold, the number of available grid charged models has increased from 70 to 130 since 2013 and incentive schemes are becoming more and more effective. Battery cost have also come down by 50% in the last 3 years. All these developments optimise the manufacturing process and increase sales.



### Electric Car



#### Yearly Cost to Fuel



#### Yearly Global Warming Pollution (CO2) Metric Tons



#### Average Charging or Refuelling Time



#### Average Distance



## Advances of Electric Vehicles within the Motor Industry.

Electric cars are beginning to compete with fuel models on both price and performance. The most expensive part of an electric car is the battery, which can make up half the total cost. The first electric cars to be competitive on price have been in the luxury class, led by the Model S developed by Tesla, which is now the best-selling large luxury car in the U.S. But battery prices are dropping by about 20 percent per year, and automakers have been spending billions to electrify their fleets. Volkswagen is targeting 25 percent of its sales to be electric by 2025. Toyota plans to phase out fuel injection motors altogether by 2050.



Traditional carmakers are preparing for a major transformation of the motor industry. In 2018, Volkswagen plans to plow into electrification with the introduction of an Audi SUV which will surely rival the luxury class models from Tesla. Tata and Volvo also have promising cars on the way in 2018 and the avalanche will really begin by 2020, with Mercedes-Benz, VW, General Motors planning the release of dozens of new models.

*(Source: [www.standard.net](http://www.standard.net))*

## Key Drivers for the Development of EVs.

The main drivers responsible for the growing trend of EVs include—rapidly falling battery costs, increased distance range, synergy with development of other new energy technologies, widespread international policy support, growing consumer interest, and revolutionary wireless charging of EVs. There are 194 countries that have signed the Paris Climate Change



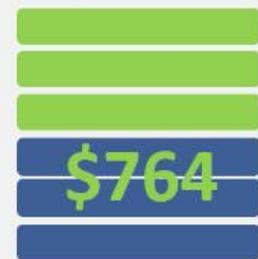
Agreement. Many of these countries, especially the developed countries, see further development of EVs as extremely advantageous to their effective implementation of the Paris Agreement. EVs do not have to capture 100 percent of the market to have a significant impact on the oil industry. Carbon Tracker cites the 10 percent threshold as key. Growing trends suggest that this threshold could very well be reached within the next decade.

*(Source: [www.vox.com](http://www.vox.com), [www.carbontracker.org](http://www.carbontracker.org))*

### Hybrid Cars



Yearly Cost to Fuel



Yearly Global Warming Pollution (CO2) Metric Tons



Average Charging or Refuelling Time



Average Distance





## The Role of Policies and Measures.

A recent analysis from the ICCT, shows there is a clear relationship between supportive national incentive schemes and the level of uptake of EVs. Purchase incentives are at the forefront, but in most of the more proactive countries, reduced annual circulation taxes and concessions are also important. Examples of measures taken by some countries are outlined below.

**China** is striving to develop EVs and is currently the undeniable front runner in global EV sales. In China, the financial incentives to promote EVs is separated into two parts, namely government purchase and private purchase. China have introduced EVs into their public transport system while trying to discourage the purchase of conventional vehicles for private use. Strict traffic controls have been adopted for conventional vehicles while financial incentives for the purchase of EVs include, subsidies, reduced taxes and zero traffic control levies.



**The Netherlands.** In early 2015, the Dutch parliament voted to make 100 per cent of new car sales emissions-free by 2025, and called on the government to push for an EV sales quota for carmakers as part of the next round of EU car CO<sub>2</sub> standards. Its success to date reflects its very generous subsidies. Electric vehicles are exempt from the national initial registration tax, and vehicles emitting up to 50g CO<sub>2</sub>/km are also exempt from annual circulation tax.

The **United Kingdom**, has a relatively large grant (up to €6000) towards the price of new EVs. Annual circulation taxes are set at zero and there are also company car tax benefits.

**Germany** has a very ambitious electro-mobility programme that aims for about a million EVs on its streets by 2020. It is currently running somewhat behind this demanding target, but offers substantial incentives. EVs are exempt from circulation taxes for their first ten years of operation.

**Japan** usually extends its "Clean Energy" subsidies each year to encourage the purchase of plug-ins. Subsidies for passenger plug-in vehicles can amount to as much as \$8,500. In addition to subsidies, Japan exempts EVs from acquisition tax (5% of purchase price) and from weight tax. The annual automobile tax is also reduced for EVs.

**Qatar** recently launched a major Green Car initiative. The aim is to have 10 % of the total cars on Qatar roads become electric by 2030. The Ministry of Energy & Industry, Ministry of Transport & Communications and KAHRAMAA signed a joint cooperation and coordination agreement to launch the initiative of "Green Car". The Transport Ministry will launch electrical cars across its public vehicles to encourage the eco-friendly cars in all sectors as well as installing and managing the infrastructure to provide these cars with energy charge points across the country. (*Source: [www.transportenvironment.org](http://www.transportenvironment.org)*)

### Journal Reference

<https://www.ev-volumes.com>  
<https://www.standard.net>  
<http://www.vox.com>, [www.carbontracker.org](http://www.carbontracker.org)  
<http://www.transportenvironment.org>

### Information

E-mail: [Sustainability@abhafoundation.org](mailto:Sustainability@abhafoundation.org)  
[www.abhafoundation.org](http://www.abhafoundation.org)

## Fuel Powered Cars



### Yearly Cost to Fuel

\$1,500

### Yearly Global Warming Pollution (CO<sub>2</sub>) Metric Tons



### Average Charging or Refuelling Time



### Average Distance

