

发展电动汽车是迈向 Electric Cars: The Only Way ——习近平考察 —Xi Jinping's Visit in



汽车强国的必由之路

Towards a Car Powerhouse

上海汽车集团股份有限公司

Shanghai Automotive Group Co., Ltd.

文/陈广 (综合) Text/Chen Guang



中共中央总书记、国家主席、中央军委主席习近平出席亚信上海峰会后，深入中国上海自由贸易试验区，深入企业、园区、科研基地，考察调研经济社会发展情况。

国家主席力挺电动汽车

5月24日上午，习近平考察了上海汽车集团股份有限公司，听介绍，看产品，进车间，问市场，重点了解了企业自主创新情况。在上海汽车集团技术中心，习近平参观了汽车造型设计、样车试制和新能源联调试验。他来到荣威、MG两大自主品牌系列样车面前，询问技术性能、性价比、市场认可度，肯定他们追赶前沿的创新精神。

习近平强调，汽车行业是市场很大、技术含量和管理精细化程度很高的行业，发展电动汽车是我国从汽车大国迈向汽车强国的必由之路，要加大研发力度，认真研究市场，用好用活政策，开发适应各种需求的产品，使之成为



After attending the CICA Summit in Shanghai, CPC Central Committee General Secretary, State President and Central Military Commission President Xi Jinping made a visit to China Free Trade Area in Shanghai for investigation of economic and social development involving enterprises, industrial parks, and scientific research bases.

State President backed electric cars

Morning of May 24, Xi Jinping visited Shanghai Automotive Group Co., Ltd. He came to the workshop and heard the relevant report about the corporate development and product sale and so forth. In the technical center, he inspected the automobile modeling design, prototype development and new energy alignment test. He came to Roewe and MG brand prototypes, asked about the tech, price, and market as well as recognized their spirit of innovation. Xi stressed that the auto industry is an industry having a large market and high requirements in technology and management. The development of the electric car is the only way for our country toward a car powerhouse. China should strengthen research and development, carefully study the market, good policy, and develop a variety of products meeting various needs, so as to let this

一个强劲的增长点。

习近平指出，当今世界，科技创新已经成为提高综合国力的关键支撑，成为社会生产方式和生活方式变革进步的强大引领，谁牵住了科技创新这个牛鼻子，谁走好了科技创新这步先手棋，谁就能占领先机、赢得优势。要牢牢把握科技进步大方向，瞄准世界科技前沿领域和顶尖水平，力争在基础科技领域有大的创新，在关键核心技术领域取得大的突破。要牢牢把握产业革命大趋势，围绕产业链部署创新链，把科技创新真正落到产业发展上。要牢牢把握集聚人才大举措，加强科研院所和高等院校创新条件建设，完善知识产权运用和保护机制，让各类人才的创新智慧竞相迸发。

习近平在上海汽车集团技术中心动力总成试验室了解开发电动汽车情况。

全国推广面临四大障碍

习近平主席在考察时对电动汽车的重视，代表了政府的声音。电动汽车后期有望得到更多的补贴和政策支持，对电动汽车行业在国内进入快速发展起到推动作用。

上海、武汉、苏州、西安等多个城市公布了电动汽车推广政策的鼓励办法或实施方案，各地电动汽车的推广目标数量庞大，呈现出集体启动的态势。2014年一季度电动汽车共销售6853辆，同比增长120%。其中，纯电动汽车销售4095辆，插电式混合动力汽车销售2758辆。无论是纯电动汽车还是插电式混合动力汽车，2014年一季度销量均大幅增长。

但是，推广电动汽车，私人消费市场培育进程缓慢，2009-2012年电动汽车私人购买量仅为1.4万辆。

总体看来，电动汽车在全国推广仍然面临四大主要障碍：一是电动汽车性价比低，首次购买价格过高，全生命周期内不具有经济优势；二是充电设施配套不到位，单次充电时间长，日常使用便捷性低，里程焦虑无法根本解决；三是在售车型种类少，可选空间相对狭窄；四是电动汽车产品成熟度低，安全性和可靠性仍有待验证。

industry as a strong growth point.

Xi Jinping pointed out that in today's world, technology innovation has become the key to improve comprehensive national strength and the driving force for the change in the social mode of production and the way of life. The leader in the technology innovation always win the opportunity and advantage. China should firmly grasp the direction of scientific and technological progress, strive to be at the front of the global technology, strive to make innovations in the basic tech field, and achieve a big breakthrough in the field of key core technology. China should firmly grasp the trend of the industrial revolution, deploy the innovation chain around the industrial chain, and apply technical innovation in industrial development. China should firmly gather the talents, strengthen the construction of innovation conditions in scientific research institutes and institutions of higher learning, perfect the mechanism for use and protection of intellectual property rights in order to let all kinds of talents gush their innovative wisdom.

Xi Jinping was at Powertrain Lab in Tech Center of Shanghai Automotive Group.

National Promotion: four major obstacles

Xi Jinping paid attention to the electric car, who represented the government's voice. Electric cars is expected to get more subsidies and policy support. This will promote the rapid development of the electric car industry in China.

Shanghai, Suzhou, Wuhan, Xi 'an and so forth unveiled the electric car promotion policy or implementation plan. In these cities, their electric car promotion goal is enormous. In the first quarter of 2014, 6853 electric cars were sold, increasing by 120% when compared with that a year earlier. Among them, 4095 pure electric vehicles were sold and 2758 plug-in hybrid electric vehicles. For both pure electric vehicles and plug-in hybrid vehicles, their sales volume in the first quarter of 2014 increased sharply.

But, the progress is slow in promoting electric cars and cultivating the private consumption market. In 2009-2012, only 14000 electric cars were privately purchased.

Overall, the national promotion of electric cars still faces four major obstacles throughout China: (1) The electric car's performance-price ratio is low; the price of the purchase for the first time is too high; the electric car has no economic advantages in the whole life cycle. (2) Two charging facilities are not fully available; the single charge time is long; daily use convenience is low; and the mileage problem still needs to be fundamentally solved. (3) The number of car models is low, so the choice space is relatively narrow. (4) Electric vehicle product maturity is low, while the safety and reliability remain to be verified.



美国欲研发“太阳能公路”为车辆供电

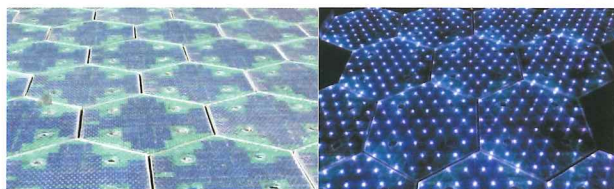
American to develop the solar road for the vehicle

文/JACK Text/JACK

太阳能公路为电动车充电，这听起来有点科幻，但真的向我们走来了！

美国爱达荷州一个家庭企业公布了其关于太阳能道路的设计理念，并且已完成了一个“停车场”的样板。在这项设计中，太阳能板能够“嵌入”公路之下，并且为周围的车辆提供电力。这些道路中还安装了一些发光二极管，可以在阴天或夜晚亮起道路标志。

这些太阳能板还覆盖有马赛克效果的灯光，在晚上，



点亮的小灯可以作为交通标志和警告信息。另外，公路下还可以“嵌入”加热器，这样在冬天的时候，公路上就不会再有积雪和薄冰。

参与开发的斯科特(Scott)和朱莉(Julie)说，他们已经开发出一小部分的太阳能供电的道路，以证明他们这一设计的可行性。并且他们希望有一天能先在美国推出他们的太阳能道路，再进一步推广到各个国家，以此为绿色能源的推广做贡献。开发者们还进一步阐述称自己设计的太阳能道路会有很高的价值，首当其冲的价值肯定是很好地利用了太阳能，如果成功在美国全国范围内安装，它能为整个国家提供更多的可再生能源。

Solar road for electric vehicle charging? it sounds a science fiction. But it is really coming to us!

In Idaho, a family enterprise issued its solar road design concept, and completed a "parking lot" model. In this design, solar panels can be "embedded" in roads, and provide power for the vehicles around. These roads also have some leds, which can light up the road signs in the cloudy day or night. These solar panels are covered with the lights of the Mosaic effect. In the evening, little lamps can be used as a light traffic signs and provide the warning information. In addition, under the roads the heaters can also be "embedded", so in the winter, the roads have no snow and ice.

Developers Scott and Julie said that they have developed a fraction of the solar powered road to prove the feasibility of this design. And they hope one day they can in the United States launch their first solar road, which will be further promoted to other countries, in order to make a contribution in the promotion of green energy. Further the developers said that their own design of solar road have a very high value. The first value is to have a very good use of solar energy. If it is successfully installed in the United States, then it can offer more renewable energy for the whole country.





略论新能源革命

New energy revolution

缓解能源压力、克服环境污染是我国经济保持持续增长态势的一个重要前提，也是新能源革命中应有之义。

能源形势不容乐观

如何调整能源结构、提高能源利用效率、为新能源找到出口、转变能源发展方式等问题已经成为我国能源发展无法回避的现实问题。我国的能源形势不容乐观！

专家指出，目前我国能源消费结构仍以化石能源为主，严重污染环境，减排治污、保护生态刻不容缓，尤其温室气体减排任务艰巨。能源利用效率低下，约为36.3%，比发达国家低约10%，产品消耗与国际先进水平差距较大。

面对着石化能源的不断枯竭以及能源消费的增长，我国能源消耗面临着巨大的挑战。经过几十年的发展，我国以重化工为主的产业结构仍未得到根本性改变，经济仍属于资源消耗型与环境污染型；我国化石资源短缺与环境承载能力已达到极限，如果继续延续传统的化石经济模式，全面建成小康社会的目标就难以实现。

文/ 特约评论员圣吉奥 Text / Special Commentator San Giorgio

To alleviate the energy pressure and overcome the environmental pollution is an important premise for our country economy to maintain sustained growth and is a part in the new energy revolution.

Energy situation is not optimistic

In the China's energy development, a realistic problem unable to avoid is to how to adjust the energy structure, improve energy efficiency, find new energy and change the energy development patter. China's energy situation is not optimistic.

Experts point out that, at present, China's energy consumption structure still takes the fossil energy as a mainstay, which leads to serious environment pollution. It is very urgent to reduce pollution emissions and protect the ecological environment, especially it is a difficult task to reduce greenhouse gas emissions. Energy efficiency is low, which is about 36.3%. This figure is lower by about 10% than that in the developed countries. There is a large gap in product consumption when compared with the international advanced level.

With petrochemical energy used and energy consumed, our country is faced with great challenge in energy consumption. After decades of development, our country is given priority to with heavy chemical industrial structure which still has no fundamental change. In our country, the economy still is characterized by resource consumption and environment pollution. China faces the fossil resources being short and environment carrying capacity reaching the limit. If the traditional economic model is not changed,

新能源革命任重道远

从2013年至今，城市雾霾已经成为中国城市发展的一个无法回避的问题，首都北京也因此“蒙羞”，而新的、清洁的能源则成为建设智能城市、绿色城市的有效途径。现实的问题是已经研发出来的新能源节能产品，政府扶持不力，推广阻力重重。

电动汽车的推广，抛开市场准入手续复杂不说，传统汽车占据市场巨大份额的现实以及配套的加油站的存在，使电动汽车的生存和发展受到极大的挤压和威胁。如果政府不提供政策导向，给予强力支持，“汽车压电车”的悲剧就将不停地表演下去。难道一定要等到石油枯竭之时再去推行电动汽车吗？

随着我国城镇化的加快，一大批的城市群、工业基地的出现，将深刻影响我国的能源格局。政府明确规定，到2030年，我国将不再审批火电项目。我国水电资源也即将开发完毕，开发风能、气能、太阳能、核能等实际上是我国城市化能源发展的战略性选择。

解决我国能源的根本途径应该是发明一种性价比较高的新能源，同时研发出多种与之相配套的产品，让新能源能够推广开来，这就如同换血一样，既不用煤、油和燃气，还要抛弃使用煤、油和燃气的产品。

新能源革命四大课题

专家指出，新能源革命必须解决四个问题：一是让所有人都享有可持续的能源。要达成这样的目标，那将是一场改变世界的革命。但是，目前还没有哪一个单独的技术能够解决这个问题。最有希望解决这个问题的就是核能。但是核电也有它的不成熟性和安全隐患。现在只有多种可再生能源技术相结合，在原有基础上进行变革。二是扩大天然气供应。2020年我们天然气目标要扩大到4000亿立方米，现在我们是1400亿立方米，在今后的6年中，我们要增加2600亿立方米的天然气。三是煤炭的清洁化使用及非化石能源的利用。四是储能技术的完美解决，这是最重要的一个问题，也是最薄弱的一个课题。

能源消费连年攀升，考验着我们国家的发展极限，发展新能源，特别是发展清洁能源，并研发出与之相配套使用的新产品，既是能源形势的紧迫课题，更是环境治理的大势所趋。

then the goal of building a well-off society in an all-round way is difficult to achieve.

The new energy revolution has a long way

Since 2013, urban smog has become an unavoidable problem in the development of Chinese cities. Beijing as the capital also is hazed. The new, clean energy becomes an effective approach to construct a smart city or green city. Real problem is a new energy or energy saving products which have been developed lack of government support and there is promotional resistance.

The promotion of electric cars faces the complex market access procedures. The traditional cars and gas stations are a large threat to the survival and development of the electric cars. If the government does not provide policy guidance and give strong support, electric cars may fail. Should we not promote the electric cars until the oil dries up?

With the speeding up of urbanization in our country, the emergence of a large number of urban clusters and industrial bases will influence our country's energy structure. The government make it clear that, to 2030, China will no longer approve thermal power projects. The hydropower resources will also not be developed. Therefore, our country has a strategic choice in the urban energy development, which is the development of wind energy, gas energy, solar, and nuclear energy.

The basic way to solve our energy problem is to find a new energy source and develop a variety of supporting products. We should let the new energy can be popularized. This likes a situation where the blood is changed or where coal, oil and gas and their relevant products are abandoned.

New energy revolution: four major topics

The expert points out, the new energy revolution must solve four problems: (1) Let everyone enjoy the sustainable energy. To achieve such a goal, it will be a revolution to change the world. There is no single technology that can solve this problem. The most promising solution to this problem is the nuclear power. But the nuclear power is immature and unsafe. The good way is to combine a variety of renewable energy technologies. The change will happen on the original basis. (2) To expand natural gas supply. Our target of natural gas in 2020 is to expand to 400 billion cubic meters, and the existing volume is 140 billion cubic meters. In the next six years, it will increase by 260 billion cubic meters. (3) Clean use of coal and fossil fuels. (4) To perfectly solve the energy storage technical problem. This is one of the most important problems and also a the weakest aspect.

Energy consumption increases. This lets the development of our country subject to the limit. The development of new energy sources, especially the development of clean energy, and the development of relevant products are the urgent task and the trend of environmental governance.

