

地方氢能产业发展实践与挑战

Practice and Challenge of Hydrogen Industry Development in local

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Vice Mayor of Foshan, Standing Committee and Vice Mayor of
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如何整体评价目前中国正处于风口之中的氢能产业？

How to evaluate the hydrogen energy industry in China?



氢能产业已经解决了“从无到有”的问题，无论是国产自主研发还是中外合作研发都取得相对显著的成效。

The hydrogen industry has solved the problem of "from scratch to existence", and both domestic and foreign joint research and development have achieved relatively remarkable results

氢能产业发展已经处于“由点到面”的推进当中，全国已经有20多座城市正以氢能为主导产业，酝酿谋划一场规模巨大的“产业运动”。

The development of hydrogen industry has been in the process of "from the point to the surface". Over 20 cities across the country are taking hydrogen energy as the leading industry and planning a large-scale "industrial movement".



当前国内氢能产业已成风起云涌之势。

At present, domestic hydrogen industry has been surging.

上市公司重金入“氢”，氢能客车陆续推广

Listed company invested into hydrogen industry, FC buses in succession promotion

1、北京、成都、郑州、佛山、云浮、张家口、如皋等城市先后实现氢燃料电池汽车批量运用。

Beijing, Chengdu, Zhengzhou, Foshan, Yunfu, Zhangjiakou, Rugao and other cities have achieved the volume application of FCEVs.

2、上汽集团实现200A和200B燃料电池系统自主开发与批量生产。

SAIC realized the independent development and mass production of 200A and 200B fuel cell systems

3、宇通客车已突破整车集成和控制技术，正在开发第四代燃料电池客车，使用寿命可达2.8万小时。

Yutong has made breakthroughs in vehicle integration and control technology, and is developing a 4th-generation FC bus with a service life of 28,000 hours.

4、美锦能源控股飞驰汽车，开发出三款氢燃料电池汽车新产品。

Foshan Feichi holded by Meijing Energy, developed 3 FC new buses.

5、雄韬股份在武汉、大同建设雄韬氢能产业园，总投资分别不少于39亿元、30亿元。

In Wuhan and Datong, the total investment is not less than 3.9 billion yuan and 3 billion yuan, respectively.

6、上海申沃、东风特汽、江苏九龙、中植汽车、成都客车等整车企业布局研发制造氢燃料电池汽车。

Shanghai Sunwin, Dongfeng, Jiangsu Joylong, ZEV, Shudu Bus and other vehicle OEMS are doing R&D for FCEVs.



下一阶段将是燃料电池大显身手的时代。

The next era belongs to fuel cell technology.

目前，国内燃料电池“叫好不叫座”，这正是一个发展机遇，等它叫座了可能就没有你的座了。

At present, domestic FCEVs "do not sell well", this is a real good timing for development before the market is mature.

10月23日，全国政协副主席、中国科协主席万钢在如皋国际氢能与燃料电池汽车大会上表示：

我们已积累了丰富的新能源汽车研发和推广的经验，有明显的体制优势。

我们的氢能源丰富，有利于支撑氢能燃料电池规模化发展。

中国的汽车市场的容量巨大，容易形成规模效应来加速氢燃料电池汽车的发展。

WAN Gang, Vice Chairman of the CPPCC National Committee and Chairman of the China Association for Science and Technology, said at the International Hydrogen and Fuel Cell Vehicle Conference in Rugao on Oct 23:

We have accumulated rich experience in the development and promotion of new energy vehicles, and have obvious institutional advantages.

We have abundant hydrogen energy, which is conducive to supporting the large-scale development of FCs.

China's automobile market is huge in capacity and it is easy to form scale effect to accelerate the development of FCEVs.

今后三年中国氢能产业的十个判断

The forecast for China's hydrogen industry in the next three years

1. 中国出现省级氢能产业发展规划，各地出现20个以上地区以氢能为主导产业的园区。

Provincial-level plans for the development of hydrogen industry will emerge in China, and over 20 hydrogen-dominated industrial parks will appear in various regions

2. 中国氢能产业路线图正式出台。

China's hydrogen energy industry roadmap is officially released.

3. “三合一”加氢站建设热潮在全国各地逐步推开。

The construction of “3 in 1” hydrogen stations will gradually scale-up across the country.

4. 中国自主研发生产的氢能重卡推出市场，柴改氢在部分能源省份重点示范推行，区域空气治理取得明显成效。

China's self-developed and produced FC heavy-duty trucks will launch, diesel vehicles will be replaced by FCEVs in some key demonstration area, governance for air-quality will achieve significant results.

5. 喝氢水、吸氢气、洗氢澡、吃氢胶囊成为中国社会健康养生的一种新时尚。

Drinking hydrogen water, breath hydrogen, taking hydrogen bath and eating hydrogen capsule will become a new fashion of health maintenance in China.

今后三年中国氢能产业的十个判断

The forecast for China's hydrogen industry in the next three years

6. 中国各地陆续成立氢科学（或氢能产业和新材料）研究院。

Research institutes for hydrogen (or hydrogen industry and new materials) will be established throughout China.

7. 通讯基站、供电系统氢燃料电池备用电源系统示范推广。

The base stations of communication and FC backup power supply system will be on demonstration and promotion.

8. 中国第一条氢能现代有轨电车示范线成功运营并开始在各大城市推广。

China's first hydrogen tram will be on demonstration and start to be promoted in all major cities.

9. 中国自主研发的氢能乘用车研发成功并推出市场，世界各国氢能乘用车陆续进入中国。

China will develop its own FC passenger vehicles and, other oversea FCEVs will be imported into China market.

10. 中国开始面向粤港澳大湾区和一带一路布局氢能产业。

China will develop hydrogen industry for the Guangdong-Hong Kong-Macao area under “One Belt And One Road” policy.



2005年，时任巴拉德技术总监

Christopher向胡锦涛同志

介绍氢燃料电池电堆

In 2005, Christopher, Ballard
technical director,

introduced FC technology to
Chairman Hu Jintao.



中国发展氢能产业要注意强强联合，
防止机会主义倾向。

China should pay attention to the alliance among giants in developing
hydrogen industry. Prevent opportunistic tendencies.

——现任佛山(云浮)氢能产业与新材料发展研究院院长

The president of Foshan (Yunfu) Hydrogen Industry and New Materials
Development Institute

Christopher · J · Guzy

站在氢能产业“风口”前，

地方政府遭遇四大共同的挑战

Local governments are face 4 common challenges in hydrogen industry

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- 1、基础数量严重不足，建设审批路径不通，怎么办？
HRS is seriously insufficient, construction approval no green light, how to do?
 - 2、标准体系很不健全，引领作用不够充分，怎么办？
Standard system is very unsound, leading role is insufficient, how to do?
 - 3、产业链条亟待完善，补贴依赖难以摆脱，怎么办？
Industrial chain urgently needs to be completed, subsidy dependence is hard to get rid of, how to do?
 - 4、应用推广进度极慢，氢气价格居高不下，怎么办？
Application progress is extremely slow, the price of hydrogen is high, how to do?

1、破解“少到多”难题： 打通加氢站建设行政审批和安全管理路径。

To Solve infrastructure issue:

Get administrative approval and safety management of the HRS

没有加氢站网络，
再好的氢能汽车都是一堆废铁

The best FCEVs are still scrap metal if no network of stations.

2、破解“有到优”难题： 打通安全检测和标准化规模生产体系。

To solve quality issue:
Build safety testing and standardized scale production system

在氢能产业发展中，
安全 and 质量始终是第一位的

In the development of hydrogen energy industry,
Safety and quality always come first

3、破解“优到多”难题： 打通国产化产业链摆脱财政补贴依赖。

To solve quantity issue:

Complete the domestic industrial supply chain and get rid of financial subsidies

氢能企业必须尽快断奶，
尽早具备自我生存能力

Hydrogen related enterprises have the ability to self-sustaining

4、破解“多到平”难题： 打通市场渠道构建新商业平台模式。

To sustainable development:

Find market channels to build a new business platform

技术基本具备以后，
市场的培育更为关键

When the technology is basically available, the cultivation of markets is even more critical.



园区从一张白纸引进技术开始，依托帮扶平台培育发展，
全链条探索推动产业，过程艰辛，但这在产业起步阶段是必须的。

The industry park starts from the introduction of FC technology by a piece of paper, and develops the platform. It is difficult for the whole chain to explore and promote the industry, but it is also necessary in the initial stage of the industry.

着眼产业长远需要，引进培育氢能全产业链标志性企业。

Considering the long-term requests of the industry,
Introduce and cultivate iconic enterprises of the whole hydrogen industry chain



广东国鸿氢能科技有限公司

从事氢燃料电池核心零部件研发生产，董事长马东生。

Sino Synergy Power

Chairman Ma Dongsheng, engaged in the development and production of fuel cell core components.



云浮市飞驰新能源汽车有限公司

从事氢能公交车、物流车整车生产，
副董事长陈晓敏（佛汽集团董事长）。

Feichi Bus

Vice Chairman Chen Xiaomin (Chairman of Foshan Automobile Transportation Group), engaged in the production of FC buses and logistic vehicles



飞驰客车
FEICHI BUS



上海重塑能源科技有限公司

从事氢燃料电池技术开发，董事长林琦。

Shanghai Re-Fire Technology

Chairman Lin Qi Engaged in FC technology development.



佛云园发展已进入新阶段

The new stage of the development of Foyun

01 由单一发展氢能汽车产业，进入氢农业和氢健康医疗等多领域全面探索发展阶段。

- From the single development of FC industry, into hydrogen agriculture, hydrogen health and medical and other areas of comprehensive exploration of development stage

02 由二次创新进入正向自主研发阶段。

- From the second innovation into the stage of independent research and development

03 由以技术合作为主推动进入以市场和平台为主推动阶段。

- Mainly driven by technical cooperation to enter the market and platform driving stage.

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广东联悦氢能有限公司

从事氢气制、运、加注及平台建设，董事长陈杰。

Guangdong Lianyue

Chairman Chen Jie, engaged in hydrogen production, transport, refueling and platform construction.



广东国能联盛新能源汽车有限公司

从事氢能汽车推广运营及平台建设，董事长唐武。

Guangdong Guoneng Liansheng

Chairman Tang Wu, engaged in the promotion of FCEVs operation and platform construction.



广州南粤基金集团有限公司

从事氢能产业投融资等金融服务，董事长林涛。

Guangzhou Nanyue Fund

Chairman Lin Tao, engaged in hydrogen industry investment and financing.



推动氢能巨舰扬帆远航，比认识更重要的是决心，
比决心更重要的是担当，比担当更重要的是行动！

To promote the hydrogen industry, what is more important than recognition is determination. What is more important than resolution is responsibility.

