

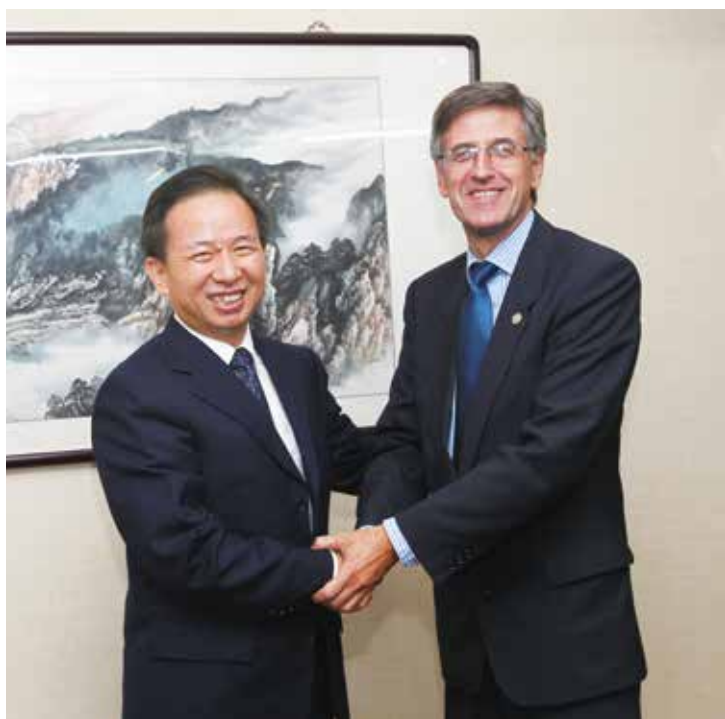
Westinghouse Electric, Keeping Pace with the Chinese Economy

西屋电气——与中国经济同行

—— Interview with Mr. Jose Emeterio Gutierrez Elso, President and CEO of Westinghouse Electric, and Mr. Gavin X.G. Liu, Asia President of Westinghouse Electric

—— 访美国西屋电气总裁兼 CEO 何睿泽先生、西屋亚洲区总裁刘信刚先生

□记者 刘新洁



中国国家环境保护部党组书记、环境保护部部长李干杰会见西屋全球总裁兼首席执行官何睿泽先生 Li Ganjie, the Secretary of the Leading Party Group and the Minister of the Ministry of Environmental Protection meets Mr. Jose Emeterio Gutierrez Elso, President and CEO of Westinghouse Electric Company

改 革开放 40 年，是中国经济蓬勃发展的 40 年。40 年来，随着对外开放的不断扩大，一大批知名跨国公司先后入驻中国，在推动中国经济发展的同时，跨国公司本身在华也取得了巨大的发展和成就。全球领先的核电技术服务提供商和环保服务巨头——美国西屋电气就是其中的一个杰出代表。2017 年 11 月 9 日，美国总统特朗普率领包括美国西屋电气等 29 家企业高管来华访问，这也是特朗普总统上任以来第一次访华。值此契机，本刊记者采访了随行而来的美国西屋电气总裁兼 CEO 何睿泽先生以及西屋亚洲区总裁刘信刚先生。这同时也是 9 年后本刊记者对西屋电气的回访。在亲切的氛围里，何睿泽先生以及刘信刚先生为本刊记者详细介绍了西屋在华发展业绩以及未来规划。

西屋电气，一个历经磨砺的百年老店。130 年来风雨兼程，如今西屋电气业务聚焦在核电领域，包括新建核电站、在运电站运维、核燃料及组件、核电站退役、去污及修复以及工程设计中心五大业务。在何睿泽先生随特朗普总统访华期间，西屋公司与中方相关企业以及政府高层都进行了充分的交流，中美两国在包括天然气和核能等能源领域的合作得到了进一步的巩固与加深。

采访伊始，何睿泽先生首先介绍了目前西屋电气的发展动态，他介绍说：“目前西屋公司的整体运营情况良好，并没有受到重组的影响，我们在全球范围内继续执行已经签订的合同。西屋旗下的工厂、设计中心、仪控业务以及各个运营机构都没有因为这次的重组而受到影响。我们在很短的时间里实现了公司的稳定发展，通过采取一系列措施，不断地改善财务状况。从财务的角度来看，公司目前的财务状况保持稳定，并保证有足够的资源，支持公司在全球持续开展业务。”

据了解，2017 年西屋电气启动业务重组，这一举措在全球备受

关注，百年老店能否继续百年常青，在 9 年后的回访中，何睿泽先生首先为记者消除了疑虑。何睿泽先生表示，目前完善的商业计划和公司的未来发展规划，使得西屋电气非常确信很快能走出目前的重组，恢复到行业领军者的地位。在民用和核领域诸多的业务板块，西屋一直保持着领头羊的地位，今后也会继续引领



西屋亚洲区总裁刘信刚先生 Mr. Gavin X.G. Liu, Asia President of Westinghouse Electric



三门二期、海阳二期和陆丰一期仪控采购合同签字仪式 Sanmen Phase II, Haiyang Phase II and Lufeng Phase I I&C Contract Signing Ceremony

核能的发展。

作为全球领先的核电技术领导者，西屋电气在百年长河的发展历程中树立起了一个不断追求卓越、紧跟时代发展的创新企业形象。本着不断与时俱进，更快捷、更高效地服务全球客户的理念，西屋电气发展至今，仍是当今无可争议的全球核电技术的领导者。说起西屋与中国的合作，时光可以追溯到上个世纪初，特别是新中国建国后西屋电气与中国的合作日益紧密，其中最为瞩目的当属和中国浙江三门、山东海阳两大核电自主化依托工程的世纪合作。记者曾在9年前采访了西屋亚洲区总裁刘信刚先生。刘信刚先生在这次专访中重点谈到了西屋与中国核电的这次历史性合作。如今，10年过去了，作为西屋电气全球示范项目——三门、海阳的项目进展如何？这10年，西

屋电气为此付出了怎样的艰辛？围绕这一相关话题，何睿泽先生、刘信刚先生都给出了答案。何睿泽首先对记者说：“三门和海阳两个项目对于西屋公司、中国核工业，以及全球的核电工业来说都有着重要的战略性意义。AP1000是目前最先进的三代加压水堆技术，也是唯一的非能动民用核电技术，在项目实施的过程中我们的确遇到了一些挑战并已经成功解决了所有挑战。目前，三门1号机、海阳1号机两个机组已经做好了充分的准备，一切都在有序进行中。”

据了解，2004年，中国核电技术公司启动了4台核岛设备的国际招标书，截至次年2月截标期，共有3家国际核电巨头向中国递交标书，美国西屋与法国阿海珐入

围，而围绕着EPR(欧洲压水堆核反应堆)和AP1000(三代加非能动压水反应堆)两种技术的博弈一直处于胶着状态，其间，两家



位于上海金桥开发区的西屋中国区域总部揭幕仪式 Unveiling Ceremony of the Headquarters of Westinghouse Electric China (Jinqiao National Economic Development Zone, Shanghai)



西屋韩国和韩国水电与核电公司签订长期的备件供应协议 Westinghouse Electric South Korea Signs the Long-term Spare Parts Supply Agreement with Korea Hydro & Nuclear Power

公司多次对竞标方案进行调整，尤其是在最为敏感的技术转让方面。最终经过技术、经济、国产化等多方面的评审论证，中国政府决定斥资数百亿元引进美国西屋公司的AP1000技术建设浙江三门、山东海阳两大核电自主化依托工程。这次合作对西屋来说是历史性的，从异常艰难谈判之初到项目的开展和推进，期间的时间跨度已达10年有余。谈到三门、海阳目前的进展时，刘信刚先生补充说：“核安全是全球核工业最重要的一个因素，也是核工业的生命线。回顾整个核工业的发展史，西屋的核工业采用的是最严苛、最严谨的安全要求，从而确保核电站的稳定运行。

在过去几年 AP1000 中国项目的建设当中，中国国家核安全局通过跟美国核管会的密切合作和信息共享，使得中国的 AP1000 项目满足了国际上最高的核安全标准。除了 AP1000 技术在美国的核管会取得了认证之外，我们在中国国家核安全局也是拿到了施工许可，目前正在等待装料许可。”

同 9 年前相比，西屋亚洲区总裁刘信刚先生显得更为沉稳和大气。当记者进一步探寻这 10 年西屋电气在华发展之路时，刘信刚先生的语气更为坚定，他说：“这 10 年，我们不管经历了多少艰难，但一直都没有放弃，一直都和我们的合作伙伴在一起努力前行。”

当一个行业结构在市场中表现为金字塔时，耀眼的塔尖不仅是高利润的代表，更是该领域产品技术和市场的领导者。目前，西屋电气全球有超过 50% 的反应堆都是基于西屋的核电技术，与此同时，西屋也将其经验带到中国并



美国总统特朗普首次访华举办中美企业家对话会 - 西屋亚洲区总裁刘信刚、前中国核工业集团有限公司总经理钱智民、西屋全球总裁兼首席执行官何睿泽先生 Gavin X.G. Liu, Asia President of Westinghouse Electric; Zhimin Qian, Former General Manager of China National Nuclear Corporation; and Jose Emeterio Gutierrez Elso, President and CEO of Westinghouse Electric in the China-USA Entrepreneur Dialog in the Course of US President Trump's Visit in China



美国总统特朗普首次访华美国商务部举办欢迎招待会 - 西屋亚洲区总裁刘信刚、西屋全球总裁兼首席执行官何睿泽、西屋中国区总经理王博安和西屋全球企业传播副总裁 Courtney Boone Gavin X.G. Liu, Asia President of Westinghouse Electric; Jose Emeterio Gutierrez Elso, President and CEO of Westinghouse Electric; Raj Bhan, Vice President and China MD of Westinghouse Electric; and Courtney Boone, Communications Vice President of Westinghouse Electric, participated in the Welcome Reception hosted by the US Department of Commerce during the US President Trump's Visit to China

通过本地化战略的推进落地。在智能时代到来的今天，西屋电气也与时俱进，在核电的服务技术领域不断采用新的前沿技术，如数字化的技术、机器人等。在设备制造领域，西屋也采用了世界上最前沿、最先进的焊接技术、引入机器人和 3D 打印技术，这些新技术正逐步在未来商业民用核电技术上推广使用。

随着中国改革开放步伐的加快，中国市场显示出的活力令世界瞩目，在采访中，何睿泽先生、刘信刚先生多次表示了西屋电气对于中国市场的重视和信心。国务院总理李克强在 2017 年《政府工作报告》中强调：“改革开放深入推进，着力实现合作共赢。”共享共赢，是经济发展的一个规律，也是当代经济发展的一种潮流。我们衷心祝愿，西屋电气与中国的合作愈加深入与广泛，西屋电气与中国经济一路同行，共同成长，共同壮大！

The Chinese economy has kept booming since the reform and opening-up. In the past 40 years, a host of famous multinationals successively swarmed into China, which made great contributions to the Chinese economy while creating significant development and achievements in China. The global leading nuclear power technology provider, Westinghouse Electric Company is a typical one among these firms. November 9, 2017, President of the United States Donald John Trump, in the company of the senior executives from 29 US firms including Westinghouse Electric, came to China for his first visit since he became president. At such moment, Multinationals in China interviewed with Mr. Jose Emeterio Gutierrez Elso, the President and CEO of Westinghouse Electric Company, and Mr. Gavin X.G. Liu, the Asia President of Westinghouse Electric. The



西屋亚洲区总裁刘信刚陪同中国国家发展和改革委员会副主任兼国家能源局努尔·白克力参观西屋美国仪控生产车间 Accompanied by Gavin X.G. Liu, Asia President of Westinghouse Electric, Nur Bekri, Deputy Director of China's National Development and Reform Commission visits Westinghouse's I&C Workshop in the US

last interview was made 9 year ago. In this interview, Jose and Liu made detailed introduction to Westinghouse Electric's achievements and future plan in China.

Westinghouse Electric, an industrial giant with a 130-year history, concentrates its efforts to the nuclear power industry and focuses on the key businesses including nuclear power station operation and management, nuclear fuel and components, nuclear power plant decommission, decontamination and

remediation and waste management. During Trump's visit to China, Westinghouse Electric held the meeting with relevant Chinese firms and government authorities, and consolidated the mutual cooperation in such fields as natural gas and nuclear power.

"Now Westinghouse Electric is operating smoothly without the influence due to the business restructuring. We continue to execute existing contracts across the world. The plants, engineering centers, instrumentation and control business and operating divisions under Westinghouse Electric are not

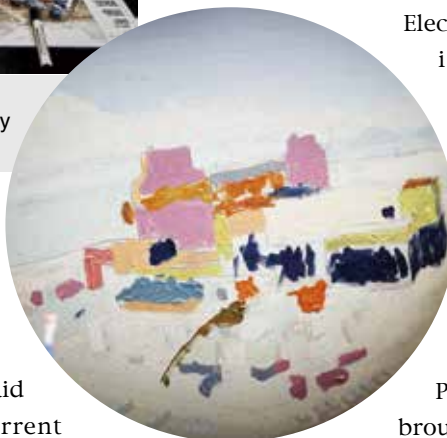


西屋亚洲区总裁刘信刚、西屋全球总裁兼首席执行官何睿泽视察三门核电施工现场
Gavin X.G. Liu, Asia President of Westinghouse Electric; and Jose Emeterio Gutierrez Elso, President and CEO of Westinghouse Electric, visit the Sanmen Nuclear Power Plant



由西屋组织的“笔下的核电”公益活动
Nuclear Energy through Kid's Eyes Activity Organized by Westinghouse Electric

subject to the influence of this restructuring. We keep the steady progression of the company and improve the financial status continuously through a series of initiatives. Now our sound finance and adequate resources are supporting us to carry on business smoothly in the world," said Jose when talking of Westinghouse Electric's current



development.

According to the reliable sources, Westinghouse Electric initiated the business restructuring in 2017, which has drawn a lot of attention from the global industries. Can this century-old firm Westinghouse Electric keep evergreen? Now such question was well answered by Jose in this interview. Jose expressed that Westinghouse Electric had developed

comprehensive commercial programs and future development plans, that will facilitate the restructuring process and help the company return to its industry leader position. Westinghouse Electric has been the leader in multiple business segments in civil and nuclear fields in the past, and it will continue leading in the nuclear power industry in the future.

As the global leading nuclear power technology leader, Westinghouse Electric has presented an image featured in pursuing operation excellence, prompt responsiveness and technology innovation. Westinghouse Electric always adheres to the philosophy "delivering innovative, fast and efficient services to global clients" and deserves as the global nuclear power technology leader. The cooperation between Westinghouse Electric and China can be traced back to the beginning of the last century. After the foundation of the New China, Westinghouse Electric developed an increasingly close cooperation with China, most prominently, the century cooperation for the nuclear power projects in Sanmen (Zhejiang) and Haiyang (Shandong). Nine years ago, Multinationals in China has interviewed with Mr. Gavin X.G. Liu, the President of Westinghouse Electric Asia. In this interview, Liu highlighted the

above historic cooperation between Westinghouse Electric and China. Now how are the projects in Sanmen and Haiyang going? What efforts have Westinghouse Electric paid in these projects? Jose and Liu gave details answers to these questions. "The projects in Sanmen and Haiyang have strategic meanings to both Westinghouse Electric and China, even for the global nuclear power industry. As the most advanced Generation 3 PWR nuclear power technology, AP1000 brought us some challenges during the project



位于上海金桥开发区的西屋中国区域总部
The Headquarters of Westinghouse Electric China (Jinqiao National Economic Development Zone, Shanghai)

implementation, but we successfully coped with them. At present Sanmen unit 1 and Haiyang unit 1 were ready for fuel load," said Jose.

According to reliable sources, the State Nuclear Power Technology Company (SNPTC) initiated the international bid for four units of nuclear island equipment in 2004; as of February in 2005, three international nuclear power giants submitted the tenders, and Westinghouse Electric (the United States) and AREVA (France) entered the final bid. These two giants came to a fierce competition in respect to European Pressurized Reactor (EPR) and Generation 3 PWR (AP1000) and made multiple adjustments to their proposals, particularly in the most sensitive area-technology transfer. Upon the review and argumentation in various aspects including technology, economy and localization, the Chinese government decided to select Westinghouse Electric's AP1000 and apply it to the projects in Sanmen and Haiyang. Such projects are significant to Westinghouse Electric's development in China. The whole period lasts over 10 years from early hard negotiation to the near completion of the projects. "Nuclear safety is the life line



AP1000 三门核电站夜景
Night scene of AP1000 Sanmen Nuclear Power Plant

of the nuclear industry that is a most important factor of the global nuclear industry. Westinghouse Electric always follows the most severe and precise safety requirements, ensuring the steady operation of nuclear power plants. In the construction of AP1000 Projects over the past few years, China National Nuclear Safety Administration (NNSA) has a close cooperation and shared information with the Nuclear Regulatory Commission of the United States (NRC), enabling the projects to reach the international nuclear safety standards. AP1000 technology had been verified by NRC and obtained a construction license from NNSA. Currently the projects are ready for fuel load," said Liu.

Despite challenges, we never give up, and keep working hard with our partners during the past 10 years," added Liu.

When an industrial entity stands on the top of the market pyramid, this means that it runs as the bellwether to capture greatest profits and acts as the product technology and market leader in its industry. Over 50% nuclear reactors operating



西屋 AP1000 主控室模拟机房
Westinghouse AP1000 Main Control Room - Simulator

over the world are based on Westinghouse Electric's nuclear power technology; and Westinghouse Electric's experiences are also introduced to China through localization strategy. In the smart era, Westinghouse Electric keeps pace with the times, and consists on adoption of leading-edge technologies in the nuclear power arena, like digitization and robot. It also introduces leading and state-of-the-art technologies for manufacturing, like welding, robot and 3D printing, and it is also applying and promoting these new technologies to future commercial nuclear power technologies.

With the fast reform and opening-up, the Chinese market boosts attracting vitality, so Jose and Liu both show their confidence and focus on the Chinese market in the interview. It is highlighted by the Premier Li Keqiang in the "Government Work Report" that "boost a new round of high level opening-up, and focus on realizing win-win cooperation". Sharing & win-win is the discipline and trend of the current economy. Wish Westinghouse Electric develop deeply and wide cooperation with China and makes a better development along with the Chinese economy!