



## FACT SHEET: CHINA WATER REUSE OPPORTUNITIES

China is one of 13 countries with extreme water shortages. It is home to 20% of the world's population but only holds 6% of the world's water resources. The water resources are also affected by severe water pollution due to the country's rapid and unbridled economic growth. With population growth, accelerated industrialization and urbanization, and global climate change, China's water crisis is worsening. Insufficient water supply has become a major obstacle restricting China's economic development.

To meet the growing demands of water use, water reclamation, recycling, and reuse are key components for China to sustain growth. In many regions, great efforts have been made to maximize benefits of utilizing reclaimed water. With advanced wastewater treatment technologies, the reuse potential of reclaimed water has been significantly increased. Meanwhile, the number of issues rose sharply with respect to complexity of implementing water reuse programs. There is still a long way to go in terms of expanding beneficial utilization of reclaimed water while minimizing the public health and environmental risks.

The Ministry of Ecology and Environment has made an effort to push new policies to stimulate the water reuse market and attract investors and financial services. The infrastructure for implementing the water reuse are costly to build and maintain. In the *13<sup>th</sup> Five Year Plan for Water Pollution Control of Key River Basin*, The State Council issued its highly anticipated Water Pollution Prevention and Control Action Plan. The plan sets a series of ambitious targets for 2030, including achieving excellent water quality in seven major water sheds, elimination of "black and odorous" water, and achieving an overall water quality of level-3 or better for 95 percent of point sources in urban areas. Key themes include industrial effluent management, wastewater treatment, water reuse, enhanced monitoring, and new enforcement mechanisms. Additionally, China's 13th Five-Year Plan (2016-2020) sets new targets for wastewater effluent quality, sludge management, and drinking water quality. The expenditure on environmental protection as of 2015 was \$536 billion USD, of which \$60 billion USD went to urban wastewater systems. Water reuse was one of the major components with estimated expenditure of over \$3.5 billion USD.

In the area of municipal water and wastewater treatment and plant development, aggressive construction of water treatment plants continues as China works to improve water quality and enhance access to drinking water and sanitation services. The 13th Five-Year Plan established a new discharge standard for wastewater treatment plants (WWTPs). In the coming years, China hopes to protect drinking water sources and improve the water quality of centralized drinking sources. The government hopes to expand and promote the protection and management of important water resources. **The key US technologies in demand: waste handling equipment, engineering, procurement and construction services, advanced filtration, membrane filtration, waste to energy technology, anaerobic digestion, nitrification, biological denitrification, monitoring equipment, testing equipment, and air flotation.**

The new plan puts tough control on polluting industries and provides strict supervision over the targeted sectors including: paper & pulp, coking, fertilizer, pesticide, textile dyeing, food processing, leather, pharmacy, electro-plating, and so for. Those industrial sectors also demand waste treatment technological upgrade, emission reduction and achieving clean production.

For years China has continuously worked to improve water reclamation and reuse technologies, introducing a series of encouraging and stimulus policies. The new policies stimulate the growth of domestic business on water reuse and reclamation. It also helps put the focus on wastewater treatment systems using less energy to be used in small community and facilities in remote areas exclusive from municipal sewage network. That creates room for American companies with rich experience to tap into the market. With that reality, more and more invest in new water treatment technologies will unlock a trillion RMB market with plenty of opportunities for US firms. It is an ideal time for American companies with advanced water treatment and reuse technology to respond the call.