

THE CHINA' S COUNTRY REPORT

ON THE 23RD FNCA MINISTERIAL LEVEL MEETING

The 2030 carbon peak goal and the 2060 carbon neutrality vision announced by President Xi Jinping

The policy of “active and orderly development of nuclear power on the basis of ensuring safety” formulated by Chinese Government

As of Oct. 2022 in Chinese mainland

53 Units

commercial nuclear power

55.59 GW

total installed capacity

**NUCLEAR ENERGY GENERATION
CAPACITY RANKING SECOND
IN THE WORLD**

23 Units

under construction

24.19 GW

total installed capacity

**CONTINUING TO RANK FIRST
IN THE WORLD**



The first four **Hualong One (HPR1000)** units have been put into operation both in China and abroad

The world's first **Modular Pebble-bed HTGR** has been successfully connected to the grid for the first time

Two nuclear heating projects have been put into operation in Haiyang, Shandong Province and Haiyan, Zhejiang Province

The **first steam supply project** for industrial uses powered by NPP has been launched in Tianwan, Jiangsu Province.

In 2016, China released the *Health China 2030 Plan*.

China has established a complete radioisotope development and production system including reactors, gas pedals, radioisotope research and production facilities, etc.

China is also actively advancing the R&D as well as industrialization of radiopharmaceuticals and diagnosis and treatment equipment.



Boron neutron capture therapy has successfully treated dozens of cases of malignant melanoma and glioma



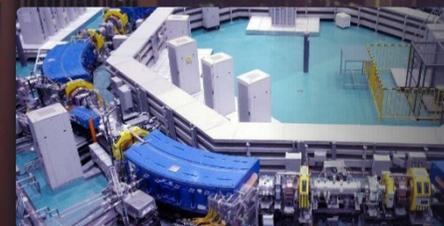
carbon-14, lutetium-177 and sodium iodide [^{131}I] capsules, ^{18}F -PSMA-BCH have been made significant progress



The first radiopharmaceutical preclinical safety evaluation laboratory (GLP) in China has been successfully established



World's first panoramic dynamic scanning PET-CT successfully developed



First domestic medical heavy ion gas pedal successfully put into clinical application

According to the statistics of 2019 in China

32,000
**Medical
Institutions**

**Radionuclide
Therapy**
770

**Radiotherapy
departments**
1,463

**Nuclear
Medicine
Departments**
1,148

- A total of **98,000 beds** in radiotherapy medical institutions.
(including oncology beds in general hospitals)
- More than **13,000 people** are specialized in nuclear medicine.
- Far below the level of developed countries worldwide.
- **4.5 million** new cancer patients each year.
- **1.2 million** of them actually received nuclear medicine treatment.

According to the statistics of 2019 in China

- China's self-produced **iodine-131** and **strontium-89** met only **20%** of domestic demand
- **lutetium-177** met only **5%** of the demand
- while other commonly used reactor irradiated medical isotopes **completely relied on imports**



Medium- and Long-term Development Plan of Medical Isotopes (2021-2035)

- **Support** medical isotope production and its radiopharmaceutical research and development;
- **Promote** the construction of nuclear medicine departments;
- **Increase** the training of talents to better promote the development of nuclear medicine.

Nuclear Medicine Departments in Large General Hospitals by 2025
***One County with One Department* Nationwide by 2035**

China is willing to strengthen cooperation and exchange with other countries in the training of nuclear technology talents under regional cooperation mechanisms.

Nuclear Technology for a Better Life

- The first China-ASEAN Forum on **Peaceful Uses of Nuclear Technology** was successfully held in Nanning, Guangxi Zhuang Autonomous Region.
- China is the Lead Country of a **new RCA project** on educating and training nuclear physicists.



China is ready to work together with member states

Thanks for your attention!

