Phase II Project of Yanqing Park Hydrogen Refueling Station Commenced Construction

On April 10, 2021, the 300-day countdown to the opening of 2022 Beijing Winter Olympic Games, good news came from the hydrogen energy industrial park in Yanqing District, Beijing. Phase II Project (supporting hydrogen production and refueling for the Winter Olympic Games) of Yanqing Park Hydrogen Refueling Station, managed by China Power, commenced construction. Hydrogen promotes "Green Winter Olympic Games, Sci-Tech Winter Olympic Games". The representatives of Yanqing Management Committee, Tsinghua University, Winter Olympics Hydrogen Mobility Research Team, Siemens, Cummins, Alibaba, SDEPCI, Suzhou Tianhe Supervision Company and construction contractor attended the groundbreaking ceremony and witnessed the significant progress of the project.

Phase II Project is an innovative demonstration project for 2022 Beijing Winter Olympic Games, jointly implemented by SPIC, China Power, Beijing Municipality and Yanqing District, and has been selected as the 5.3 Hydrogen Mobility Key Technology R&D and Application Demonstration Project, a key special project of the National Key R&D Program "Sci-Tech Winter Olympics".

The Project will adopt proton exchange membranes (PEM) to produce hydrogen, give full play to the demonstration role to introduce the first domestic megawatt-class electrolytic water hydrogen production device, plan to install high-quality hydrogen production device and 70 MPa hydrogen refueling device, build a hydrogen testing laboratory and a R&D platform for green electrolytic water hydrogen production, and form an intelligent network platform for the whole supply chain of hydrogen production, storage, transportation and refueling. The platform will show the charm of "zero carbon energy" to the world during the Beijing Winter Olympic Games. In the future, the Project will continue to join with relevant universities and enterprises to serve Beijing and SPIC in hydrogen energy sci-tech innovation, and combine application and research to overcome the "bottleneck" problem of hydrogen energy science and technology.

The Project will have a maximum daily hydrogen production capacity of 500 kg, and a maximum refueling capacity of 2 tons at 35 MPa and 70 MPa, providing hydrogen fuel for the operation of 100-200 hydrogen-fueled buses in Yanqing District during the Winter Olympic Games and becoming one of the hydrogen transportation infrastructures in Yanqing District while meeting the demand of the Winter Olympic Games.

Aiming at the "30.60" carbon targets, China Power has been promoting clean transformation, connecting with Yanqing District, integrating into the first batch of national "lucid waters and lush mountains are invaluable assets" practice innovation bases and the capital "ecological conservation development area" construction practice. The Company has successfully explored and summarized the construction approval process of hydrogen refueling and production projects and achieved a breakthrough, building a green transportation mode and promoting green economic development.

Phase I Project is a 35 MPa hydrogen refueling station in Yanqing Park, and it was approved and assessed for safety by the competent authorities and put into commercial operation on October 15, 2020 as the first hydrogen refueling station of Hydrogen Mobility Key Technology R&D and Application Demonstration Project. It has provided hydrogen refueling guarantee for the tested hydrogen-fueled vehicles for the Winter Olympic Games since 2020. Phase I Project has a daily refueling capacity of 500 kg at 35 MPa, which can provide hydrogen refueling service for 30 to 50 hydrogen-fueled buses. According to the estimation, a refueled bus can travel nearly 400 km, saving about 20 tons of gasoline fuel, reducing CO_2 emissions by about 61.7 tons and NOx emissions by 192 kg each year.

Phase II Project (70 MPa hydrogen refueling station) will provide more "zero carbon" hydrogen fuel for hydrogen-fueled buses in the test event to be held in September 2021.