Provide guidance to China's national authority developing standards for fuel cell backup power for base stations as well as the supportive attitude of China's three major carriers for deployment of hydrogen fuel cell

Mid-2012, Mr. Wan Gang, Minister of Science and Technology of the People's Republic of China and senior representatives of China's three major carriers participated in on-site demonstrations of hydrogen fuel cell as backup power source for telecommunication BTS (base transceiver stations) in Shanghai.

Three important government decision makers – the Ministry of Science and Technology, the Ministry of Industry and Information Technology, and the National Standards Committee, together with university experts and manufacturing leaders attended meetings related to the "Twelfth Five-Year National Science and Technology Support Program," discussing and participating in demonstration projects associated with hydrogen fuel cells as a source of telecommunications backup power, emergency power generation, and vehicle research and development.

The meeting reached the following consensus regarding the application of fuel cells for telecommunications BTS backup power:

#1 The fuel cell technology is a strategic energy saving and environmental solution. Advantages include high efficiency, no pollution, environment adaptable, long-term continuous operation, and low maintenance cost characteristics, providing an important development for the future of telecommunication standby power.

#2 Promoting environmental healthy energy sources is a key factor of sustainable development of social-economic goals. A key goal of the telecommunications industry is to reduce energy consumption and substitute green energy solutions whenever feasible. The use of fuel cells for BTS standby power is significant in achieving these goals.

#3 Limited field trials of BTS powered by hydrogen fuel cells have achieved testing expected testing standards and requirements from mobile operators. However, further testing on a larger scale is needed to determine if cost performance savings can be improved. Representatives of the three mobile operators expressed willingness to actively support and cooperate with the Ministry of Science and Technology to complete a pilot larger scale application of fuel cell backup power supply, estimated at hundreds of units.

VN Tech actively participated in preliminary the field trials, and was assured that it will be invited to participate in the larger scale pilot project.

China Communications Standards Association developed TC4 audit standards, and reported its recommendations to the National Institute of Standards and other approval authorities. VN Tech actively participated in the standards reporting work. After the approval of the national standard, the three operators will have a standard for specification and maintenance that will enable deployment of fuel cell units to provide standby power for BTS.



During the meeting, participants experts visited the trial sites VN Tech built for China Telecom.



The above picture shows the MIIT TC4 Chairman, expert representatives from China Mobile, China Telecom, and green power providers, include VN Tech

During 2012, a partner team led by VN Tech completed the field trial testing of hydrogen fuel battery backup units for China Mobile and China Telecom under different geographical environments in different provinces.

In 2013, VN Tech will participate with the major operators on a larger scale pilot involving field application of hundreds of hydrogen fuel cell backup power units.

VN Tech is leading the relevant operators, universities and research institutes, industrial companies, and government agencies to promote national attention for the deployment of hydrogen fuel battery backup in the field of telecommunications. VN Tech hopes these efforts will lead to government providing financial subsidies or tax concessions to encourage operators to using hydrogen fuel cells for their backup power needs.

VN Tech looks forward to the full deployment of hydrogen fuel cells in China.