



# Heliostat Consortium Seminar Series

Brought to you by the Resource, Training, and Education (RTE) topic area



**Professor Zhifeng Wang**  
[zhifeng@vip.sina.com](mailto:zhifeng@vip.sina.com)

Chairman,  
China Solar Thermal  
Alliance

Professor, Institute of  
Electrical Engineering,  
Chinese Academy of  
Sciences

**Host:** Dr. Rebecca Mitchell

**Title:** Introduction of the  
2022 CSP Blue Book of  
China

**When:** March 1<sup>st</sup> 4-5 PM  
MST

**Zoom:**  
[https://nrel.zoomgov.com/  
j/1606577698](https://nrel.zoomgov.com/j/1606577698)

**Abstract:**

In 2022, China's total energy consumption was 5.37 billion tce, of which, China's total building energy consumption was 1 billion tce and heating energy consumption of urban and rural buildings was 300 million tce. The advantages of CSP technology with long-duration thermal storage has been highly recognized by the decision-makers and the state grid. The first and second generation of CSP technology with oil and molten salt as HTF have been commercialized in China and around the world, the 3rd generation CSP technology completed the laboratory stage, and the 4th generation is in the laboratory stage, making relatively fast progress. China's Ministry of Science and Technology initiated a CSP key R&D project during the 13th Five-Year Plan period, named of basic research on CSP system with supercritical carbon dioxide (S-CO<sub>2</sub>) cycle. This project has produced initial results. Meanwhile, China's neutrality goal brings more chances for solar seasonal thermal storage technology. Based on more than 4 years of continuous operation data, the solar season thermal storage demonstration system has verified its the reliability and applicability, which will have a bright potential market.

**Bio:**

Dr. Zhifeng Wang is the Professor of Institute of Electrical Engineering, Chinese Academy of Sciences (CAS), Founder and Chairman of China Solar Thermal Alliance, a member of "Ten Thousand Talents Program of China" and "100 talents program of CAS", and the distinguished backbone professor of CAS. His main research areas include concentrating solar power system, flow and heat transfer in high temperature solar collection system, thermal performance evaluation, solar seasonal thermal storage etc. He led the preparation of 2 national CSP standards and has published more than 200 papers on solar thermal field, including more than 60 articles in the past 5 years, with citation about 3,500 times. He has got more than 90 invention patents, supervised more than 50 Master and PhD theses.