



The Academy of Science of South Africa (ASSAf)
and the Zimbabwe Academy of Sciences (ZAS)
In partnership with

South African Academy of Engineering (SAAE), South African Institute of Electrical Engineers,
South African Institute of Mechanical Engineers, South African Institution of Civil Engineers.
cordially invite you to the 2nd webinar on

How pumped storage hydropower can support South Africa's energy transition.
International and Regional Contributions

Date: **22 November 2023**
Time: **11:00 – 14:30**
Register: [Click here to register](#)
Venue: **Zoom (link to be provided upon registration)**

*Striving together to
promote the
technological welfare of
South African society by
marshalling the
knowledge of experts in
STEMI.*

BACKGROUND

On Monday, 4 September 2023, the Academy of Science of South Africa (ASSAf) hosted a webinar with the South African Academy of Engineers (SAAE) on "How pumped storage hydropower can support South Africa's energy transition". South Africa's electricity crisis has encouraged all sectors of society to consider how best the country's energy needs can be met in the face of the looming climate crisis, which will require substantial changes in the electricity system over the next three decades.

While renewable sources such as solar and wind power will have an important role in any new energy system, it is widely recognised globally that energy storage will play an important role in optimizing the use of these inherently intermittent sources. South Africa already has over 3 000 MW of pumped storage generating capacity, which was developed to store the surplus energy generated from coal during off-peak periods. The plants can generate at full capacity for up to 15 hours, offering cost-effective storage that can meet the demands of the system flexibly and reliably. Pumped storage will thus continue to play an important part in SA's electricity system and needs to be better understood since more pumped storage installations have been proposed. The 1500 MW Tubatse Pumped Storage Power Station in Limpopo Province is on the radar for development, along with a proposal to upgrade the Steenbras Hydro Pumped Storage Scheme.

Building upon the first webinar, the Academy has invited an international contribution from the State Grid of China and a regional contribution from Zimbabwe to share their experiences, plans, and recommendations.

SPEAKERS

Mr Xie Feng, Senior Engineer and Associate Professor, Training Master of American Association for Talent Development (ATD) Director of Power Grid Construction Training Department of State Grid of China Technology College. Mr Xie Feng is familiar with the development of Pumped Storage in China. His research direction is condition-based maintenance of power transmission and distribution equipment.



Dr Fortunate Farirai, Fellow of Zimbabwe Academy of Science and her expertise is on Energy solutions

