South African Academy of Engineering (SAAE) Open Lecture by Dr Steve Lennon

The South African Academy of Engineering will present an open lecture by Dr Steve Lennon, "Opportunities for South Africa's Electricity Power Sector" on the following two dates:

- Johannesburg: Monday 16 March 2015 at 17h30 for 18h00 in the Kingfisher Room at the Woodmead branch of the Johannesburg Country Club.
- **Durban**: Wednesday 18 March 2015 at 17h30 for 18h00 in Rooms 1 and 2 of the UNITE Building (South Entrance 3 off Rick Turner Road (formerly Francois)), Howard College Campus, King George V Avenue/Mazisi Kunene, Glenwood, Durban.

Dr Steve Lennon FSAAE FSAIE is Group Executive: Sustainability_at Eskom Holdings SOC Ltd. He is a Fellow of the Royal Society and was Eskom Executive of the Year in 1997.

RSVP to Heleen Duffey at office@saae.co.za before 9 March 2015 (for catering purposes).

Summary of lecture

It is time for us to think differently about our power sector and to bring the inherent innovation that is in all of us into play. In the power sector each challenge, taken in isolation, is enormously daunting. Collectively the challenges can be contradictory and seemingly overwhelming, but they can be overcome.

The South African power sector has a long and proud history of innovation. Our nation brought large scale dry cooling to the world. We led the game in the use of high altitude, high voltage transmission infrastructure and at one stage our electrification programme was the biggest and most effective in the world. We continue to show that we can innovate with the world's largest dry cooled power stations, Medupi and Kusile, a leading conservation effort at Ingula and one of the world's most successful energy efficiency programmes.

In rising to the challenge of growing our economy beyond current projections, we need to consider the opportunities facing us. In addition to the obvious ones inherent in the current investment programme, we need to be aware that the power sector's technological base is on the brink of a fundamental change. This is driven by the emergence of renewable and low resource intensity supply and demand technologies which are increasingly competing with the current asset base of the industry. When coupled with the as yet untapped potential in smart grid technologies and emergent low cost, high efficiency storage technologies, it is clear that the conventional utility business model will change dramatically over the next 20 to 50 years. We need to prepare for this future as we grow our economy. This presentation will look into these opportunities in the context of our plans and the drive to achieving sustainability in the power sector.

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