

DISCUSSION MEETING SUMMARY

Study Committee A1

Power Generation and Electromechanical Energy Conversion

27th August 2026

Chair: Howard Sedding

Secretary: Peter Wiehe

Special Reporters: Steve Mitchell, Gerfried Maier
(Kevin Mayor was unable to participate in the GDM session)

1. INTRODUCTION

The 2026 discussion meeting of Study Committee A1 was held on 27th August in room 352AB at the Palais des Congrès in a morning and afternoon session.

The sessions were face-to-face only – no remote participation was facilitated. Sparkup was used as the tool for local interactivity.

2. RUNNING OF THE MEETING

The meeting morning session was chaired by the Study Committee Chairman, Howard Sedding (Canada), with Special Reporters Mr. Steve Mitchell (UK) and Gerfried Maier (Austria) assisting in coordinating the prepared contributions.

The Interactivity Coordinator was Aaron Doyle (Canada).

The Chairman opened the session welcoming the audience and reminded them of the format of the discussion group meeting, the anti-trust guidelines and how the contributions were to be presented during the session. The contributions, showcase presentations and discussions then commenced.

3. GROUP DISCUSSION MEETING

The meeting covered three preferential subjects, with the number of papers, prepared and spontaneous contributions as summarised in the table below:

Preferential subject	Accepted Papers	Questions raised	Prepared contributions
PS1. Rotating Electrical Machines and the Energy Transition	10	5	12
PS2 - New Machine Developments	20	8	9
PS3 – Asset Management and New Challenges	27	11	33
Total	57	24	54

The formal contributions were well prepared and addressed the questions raised in the special report. Throughout the day around 70-110 delegates attended the discussion meeting, and the participation and involvement resulted in many discussions on a variety of technical topics. Two prepared showcase presentations, submitted via the Next Generation Network (NGN) were presented. Several questions/surveys were posed/conducted during the day using Sparkup.

During the course of the day, the following themes were covered:

- Hybrid systems – STATCOMS and Synchronous condensers,
- Customer/grid regulations requiring machine design adaptations/optimisations beyond the constraints given in the international standards (e.g., IEC60034-1 and -3, and IEEE C50.10/C50.13),
- Changes in operating conditions, such as increased reactive capability demand, resulting in increased inspections and maintenance.
- Machine learning and AI applied to rotating machine condition assessment and the necessity of expert judgement,
- Reliability of Wind generators compare to conventional gas/stream turbine driven plant,
- Combination of global insulation condition parameters ($\tan \delta$, capacitance) with other condition monitoring parameters (e.g. partial discharge) usage for inspection, repair or refurbishment of power plant.
- The development and use of component/machine health indices to assess generation assets to prioritise maintenance, repair and replacement decisions,
- Impact of new operating regimes, such as increase grid harmonics, on life extension /upgrades of existing power plant.

The presentations were very well prepared and presented, and the authors were able to answer the resulting questions clearly and comprehensively.

There was a good involvement of the audience resulting in some in-depth, informative and interesting discussions.

5. CONCLUSION

The 2026 SC A1 discussion meeting comprised prepared and spontaneous contributions covering a wide range of technical topics associated with power generation and electromechanical energy conversion.

There were 54 prepared contributions which is similar to previous Paris Sessions. This number of prepared contributions fits well to the GDM scheduled duration whilst facilitating open discussions on specific topics of high interest.

The session was well received and attended including some new and younger participants.

In addition to the contributions, two NGN Showcase paper presentations were given. The papers were well presented and very well received by the SC A1 audience.