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Development of PIESA Standards for Technical Regulation of Power Quality

Prepared on behalf of the PIESA Standardization Working Group by Mr. R. Koch and Mr. Paul Johnson, ESKOM, South Africa Mr. K. Kasonkomona, ZESCO, Zambia

Abstract

This paper describes the progress made by PIESA in the development of a regional standard that is intended to be applied by electricity utilities and regulators as a common reference in the management of power quality.

PIESA has recognized the drive from regulators to require electricity licensees to manage power quality and demonstrate adherence to acceptable standards. It follows that agreement on common standards for the measurement and assessment of power quality parameters is required. The pioneering work done in South Africa, which began in the mid 1990s to develop an industry standard for the management of power quality (NRS 048) formed a sound basis from which the PIESA Standardization working group ¹ to develop a regional standard (PIESA 1048) that takes account of the regional challenges in regard to power quality. It is expected that the PIESA Board will have approved PIESA 1048 prior to the PIESA-IERE forum, following the process of consensus building that has taken place among its members and other stakeholders, such as the Southern African Power Pool (SAPP) and the Regional Electricity Regulators Association (RERA).

Given the support of the RERA technical Committee, it is the intention of PIESA to lobby for regulators in the region to formally recognize this standard as the benchmark for assessing power quality delivered to customers. It will also be promoted as the standard for each PIESA member to reference when engaging with individual customers in respect of power quality management.

¹ At the time this paper was prepared, the PIESA Standardization Working Group comprised: K Kasonkomona, ZESCO (Zambia); A Kaponda, ESCOM (Malawi); R Wienand, AMEU (South Africa); C Muzamwese, ZESA (Zimbabwe); T Phate, LEC (Lesotho); K Ngoie, SNEL (DR Congo); P Johnson, Eskom (South Africa)