

**ABOUT THE IMPEDANCE OF THE STATIC VAR COMPENSATOR AND
OF THE THYRISTOR CONTROLLED SERIES CAPACITORS**

BY

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Abstract. The introduction of FACTS (Flexible AC Transmission Systems) devices gives new perspectives to power systems planning and operation. The series compensator – TCSC (Thyristor Controlled Series Capacitor) and the shunt compensator – SVC (Static Var Compensator) are parts of these devices. The paper presents some considerations about the impedance of these compensators. Thus, starting from the structures of these devices, their fundamental impedance is determined and the dependence of the impedance *vs.* the components elements (L , C , R , L_c) and the firing delay angle (α) of the thyristors was analysed.

Key words: power systems; FACTS devices; TCR; TCSC; SVC.