

**STUDY OF THE POWER FACTOR IMPROVEMENT
ON THE EAC DISTRIBUTION SYSTEM**

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PROJECT REPORT

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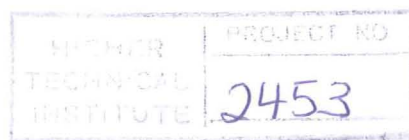
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S U M M A R Y

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The main objective of this project is to locate the position(s) where capacitors have to be installed for Power Factor improvement, using load flow techniques and technoeconomical criteria. In particular, the project examines Platres 11KV feeder which is coming out of the Trimiklini's Substation in Limassol.

The single-line diagram of the Platres' overhead line is divided into 111 busbars in order to be easier to study it. The transformers are taken as fixed loads which have been recorded during August of 1992 when the Platres' o\h line had the largest load. The power factor of the line is taken as 80%. Also the distance, the type and the cross-sectional area of the conductor used are given on the drawing. All these parameters are passed through the computer to the "Load Flow Program" in order to calculate the system losses and decide where and what rating of capacitors the system needs to improve the p.f. of the line to near unity.

Our study is based on the minimum system active losses criterion.

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