

**Higher Technical Institute
ELECTRICAL ENGINEERING DEPARTMENT**

DIPLOMA PROJECT

**SYSTEMS APPLIED BY THE EAC FOR
REDUCING THE MAX. DEMANDS THAT OCCUR
DUE TO DOMESTIC OFF-PEAK LOADS**

*BY
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E/1185

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**Project title : SYSTEMS APPLIED BY THE EAC FOR REDUCING
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Project report submitted by :

CHRYSANTHOU AVRAAM

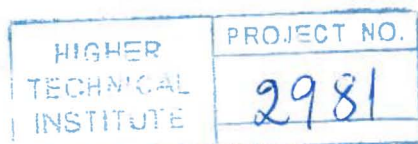
**In part of satisfaction of the award
Diploma of Technical Engineer in
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ABSTRACT

SYSTEMS APPLIED BY THE EAC FOR REDUCING THE MAX DEMANDS THAT OCCUR DUE TO DOMESTIC OFF-PEAK LOADS

This project deals with the problem caused by the off-peak loads (storage heaters). Due to the sudden increase of the storage heaters installed, new peaks are observed during off-peak hours. These new peaks are sometimes higher than the peaks during the on-peak hours.

The objectives of this project are:

1. To access the degree of effectiveness of each system.
2. To evaluate the economic benefits.

The terms of reference of this project are:

1. To describe the various systems.
2. To access the effectiveness of each system.
3. To examine the economic problems arising from the high domestic off-peak loads.
4. To make suggestions for further improvements.

SUMMARY

The E.A.C. began to sell storage heaters as a method of central heating in order to smooth out the load curve.

For the better and more economic generation of electricity the load factor of the load curve should be as low as possible. In order to be accomplished the load curve should be as linear as possible. So a low tariff was established for the operation of the storage heaters to encourage the customers to use this kind of central heating. The storage heaters are switched ON during off-peak hours so the load curve is quite smoothed out.

In the last few years it is observed a sudden increase of the number of storage heaters. The result of this sudden increase is that new peaks were created during off-peak hours something which is unwanted and against the original goal of the promotion of the storage heaters because more generators are put in operation to satisfy the new load.

Many suggestions were proposed for the solution of this problem. Some suggestions were implemented and many of them gave good results.

The ways, which are applied, are explained in detail in this project.