PACKAGE ID - 000746IBMPC00 SYSPLAN

KWIC TITLE - Load Leveling Battery System Costs

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LIMITATION CODE -UNL **AUDIENCE CODE -** UNL

COMPLETION DATE - 03/21/1988 **PUBLICATION DATE -** 03/22/1988

DESCRIPTION - SYSPLAN evaluates capital investment in customer side of the meter load leveling battery systems. Such systems reduce the customer's monthly electrical demand charge by reducing the maximum power load supplied by the utility during the customer's peak demand. System equipment consists of a large array of batteries, a current converter, and balance of plant equipment and facilities required to support the battery and converter system. The system is installed on the customer's side of the meter and controlled and operated by the customer. Its economic feasibility depends largely on the customer's load profile. Load shape requirements, utility rate structures, and battery equipment cost and performance data serve as bases for determining whether a load leveling battery system is economically feasible for a particular installation. Life-cycle costs for system hardware include all costs associated with the purchase, installation, and operation of battery, converter, and balance of plant facilities and equipment. The SYSPLAN spreadsheet software is specifically designed to evaluate these costs and the reduced demand charge benefits; it completes a 20 year period life cycle cost analysis based on the battery system description and cost data. A built-in sensitivity analysis routine is also included for key battery cost parameters. The life cycle cost analysis spreadsheet is augmented by a system sizing routine to help users identify load leveling system size requirements for their facilities. The optional XSIZE system sizing spreadsheet which is included can be used to identify a range of battery system sizes that might be economically attractive. XSIZE output consisting of system operating requirements can then be passed by the temporary file SIZE to the main SYSPLAN spreadsheet.

PACKAGE CONTENTS - Software Abstract; NESC Note 88-53; PNL-5595;

SOURCE CODE INCLUDED? - Yes

MEDIA QUANTITY - 1 5.25 Diskette

COMPUTER - IBM PC

OPERATING SYSTEMS - DOS 2.1

PROGRAMMING LANGUAGES - Lotus 1-2-3

SOFTWARE LIMITATIONS - A maximum of five independent variables may be selected for sensitivity analyses. SYSPLAN is not a complete

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SOFTWARE LIMITATIONS -(CONT) investment analysis, but rather a first step toward performing detailed engineering feasibility studies.

SOURCE CODE AVAILABLE (Y/N) - Y

OTHER PROG/OPER SYS INFO - A copy of the proprietary Lotus Development Corporation Lotus 1-2-3 software is required.

HARDWARE REQS - SYSPLAN requires an IBM PC with 256 Kbytes of memory and two flexible disk cartridge drives or one flexible drive and one hard disk drive.

REFERENCES - C.J. Hostick, R.A. Hutchinson, and C. Winter, SYSPLAN: Model Documentation and User's Guide, PNL-5595, January 1986.

ABSTRACT STATUS - Released screened October 13, 1994.

SUBJECT CLASS CODE - T

KEYWORDS -
COMPUTER PROGRAM DOCUMENTATION
S CODES
ECONOMIC ANALYSIS
COST ESTIMATION
CAPITALIZED COST
OFF-PEAK ENERGY STORAGE
ELECTRIC BATTERIES

EDB SUBJECT CATEGORIES -
990200 251000

SPONSOR - DOE/CE

PACKAGE TYPE - SCREENED