

PACKAGE ID - 001123IBMPC00 FEDS3.0

KWIC TITLE - Facility Energy Decision System Version 3.0

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LIMITATION CODE -COPY **AUDIENCE CODE** - LIM

COMPLETION DATE - 04/01/1995 **PUBLICATION DATE** - 03/01/1996

DESCRIPTION - Designed for building energy managers, utilities and firms providing energy services, FEDS provides a comprehensive and user-friendly method for users to quickly and accurately identify energy generation and end-use technology improvements that offer maximum savings in energy usage and cost. FEDS enables the user to assess energy efficiency and consumption, identify retrofit opportunities, select minimum life cycle costs, determine payback, and prioritize investments in energy efficiency retrofit projects for multiple or single buildings across a particular site.

PACKAGE CONTENTS - Media Directory; Software Abstract; PNNL-10542 REV.1; Media Includes Executables, Data Files, Sample Problem Input;

SOURCE CODE INCLUDED? - No

MEDIA QUANTITY - 4 3.5 Diskettes

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METHOD OF SOLUTION - FEDS utilizes life-cycle cost optimization, maintains technology and fuel independence, and incorporates peak tracking. Its analysis accomodates detailed energy system information input; it generates (outputs) detailed project-by-project technology selection, prioritization- and economic information. Its analysis produces the most promising building and end-use retrofit opportunities, ranks each of them and estimates the associated capital investment requirements.

COMPUTER - IBM PC

OPERATING SYSTEMS - Microsoft windows 3.1 or higher, Windows 95

PROGRAMMING LANGUAGES - C, C++, Visual Basic, Microsoft Access

SOURCE CODE AVAILABLE (Y/N) - N

UNIQUE FEATURES - There are a number of attributes of FEDS that differentiate it from other energy software products. FEDS performs life cycle cost optimization, maintains technology and fuel independence, and conducts peak tracking. It also provides users with comprehensive engineering and economic parameters necessary to perform a comprehensive analysis. Finally, FEDS does not require that the analyzed buildings be individually metered.

RELATED SOFTWARE - FEDS does not supersede, nor is it an extension of, earlier software. FEDS can be used in conjunction with DOE2, ASEAM, and BLAST, related software tools developed by DOE and DOD. These three are oriented toward detailed building energy system design.

OTHER PROG/OPER SYS INFO - Input ASCII files from earlier FEDS versions runs must be converted to proprietary FEDS 3.0 input format. The user can request output files in four different formats including a summary report (casename).txs, a detailed retrofit report (casename).txd, spreadsheet (casename).prn, and ECIP report (casename).ecp.

HARDWARE REQS - Minimum recommended IBM-Compatible 80486DX/25 Mhz with 8MB of RAM and 20 Megabyte hard disk space. An IBM-Compatible Pentium class machine is recommended to reduce input, calculation and output time.

TIME REQUIREMENTS - Input time is dependent on the amount of information the user enters which can make the FEDS runs range from a few minutes to many hours. The greater number of building sets in conjunction with detailed energy modeling information will significantly increase calculation time. Excluding certain types of retrofit technologies from optimization reduces computation time. Having a faster computer processor with 32-bit architecture will reduce calculation time as well.

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REFERENCES - J.Dirks, Facility Energy Decision System User's Guide,
PNNL-10542 Rev.1, March 1996.

ABSTRACT STATUS - Submitted November 7, 1996. Released screened
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SUBJECT CLASS CODE - T

KEYWORDS -

COMPUTER PROGRAM DOCUMENTATION
F CODES
BUILDINGS
ENERGY CONSUMPTION
ENERGY EFFICIENCY
ENERGY CONSERVATION
LIFE-CYCLE COST
ENERGY MANAGEMENT
WALLS
ROOFS
METEOROLOGY

EDB SUBJECT CATEGORIES -
990200 320105

SPONSOR - DOE/ER

PACKAGE TYPE - SCREENED