



**ENERGY CONSERVATION
MANUAL FOR
SCHOOL FOOD SERVICE**

PREFACE

The management of resources to reduce expenses is important in any school food service operation, and energy is one resource that can be conserved. Energy costs fluctuate dramatically depending on the price of oil, and at some times are very expensive which necessitates conservation. This manual is designed to be a reference on energy. It includes information about monitoring energy use and developing energy improvement and conservation plans. School food service personnel at the school and district levels can use this manual in their programs to improve use of energy and control costs..

This manual resulted from a research project that the National Food Service Management Institute funded at Oregon State University. A study of energy consumption was conducted and served as a basis for developing this manual. Results of that study have been published and the citation for the study is included in the reference list included in this manual.

We would like to express appreciation to Dr. Ann M. Messersmith, Dr. George Wheeler, and Ms. Victoria Rousso of the Oregon State University for developing the content for this manual on energy conservation. We also would like to recognize the contributions of the following individuals: Larry Isitt, a doctoral student in English at the University of Southern Mississippi who edited the manual for wording and style; Drs. Mary Frances Nettles and Mary Gregoire for reviewing the manual for content and consistency; Ms. Lisa Barrett for typing and formatting the manual; and Ms. Shonia Gipson for typing portions of the manual.

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ENERGY CONSERVATION MANUAL FOR SCHOOL FOOD SERVICE MANAGERS

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INTRODUCTION

The food service industry uses large amounts of electricity, gas, and steam, which, if managed efficiently, contribute to more effective food service operations.

School food service managers need to monitor and control energy use to this end. This is not easily done since managers often must work with old equipment and in buildings where food service shares facilities with classrooms, gymnasiums, libraries, restrooms, heat plants, and other energy using areas which often have different energy needs and operating schedules, but yet are controlled as one unit.

Energy conservation requires a group effort. School food service managers must promote energy conservation efforts with food service staff, including providing them with training. These energy conservation efforts can be shared with students, teachers, administrators, and families since environmental concerns are shared by many people. Involvement in conservation can provide a positive image for the school food service program.

Objectives

This *Energy Conservation Manual for School Food Service Managers* will assist managers in developing an ongoing program of energy conservation. By doing monthly energy audits, the manager can make smarter energy-related decisions regarding record keeping, audits, production planning, and conservation techniques for food service. The manual can serve as a reference document for ongoing energy management in school food service. This manual helps school food service managers to:

- 💡 track and organize energy use from utility bills,
- 💡 estimate energy use, and
- 💡 make operational decisions that will lead to a cost effective operation.

Energy conservation is the result of carefully planning equipment and operating techniques to reduce the use of energy. The conservation of energy has two major outcomes: (1) less natural resources are used, and (2) costs are reduced.

Organization

The manual offers energy conservation ideas at two levels for existing school food service production and service: (1) non-technical and low cost enhancements and (2) capital investment and systems changes. As you will see, we've made the manual adaptable to your needs as a food service manager so that you may more easily and efficiently run your operation by learning how to organize an energy planning team as well as conduct audits of utility bills so that you may lower production costs. We've provided sections of the manual for references, glossary/equations, sample forms, and technical information.

