

# Looking at Energy Efficiency - Focus on United States 2018

<https://marketpublishers.com/r/L4ED485A649EN.html>

Date: December 2018

Pages: 120

Price: US\$ 750.00 (Single User License)

ID: L4ED485A649EN

## Abstracts

Energy efficiency is generally the largest, least expensive, most benign, most quickly deployable, least visible, least understood, and most neglected way to provide energy services. Energy efficiency has gained little attention or respect for its achievements, let alone its far larger untapped potential. The potential of energy efficiency is increasing faster through innovative designs, technologies, policies, and marketing methods than it is being used up through gradual implementation. However, till the time we start treating energy efficiency as a tradeable resource, and this spurs an innovation in business models which also attract private investment, it becomes difficult to imagine a pathway that will ensure the success of energy efficiency in today's world. Energy efficiency, as of today, needs all hands on deck to achieve success and to make a significant dent on climate change.

Aruvian Research's report Looking at Energy Efficiency – Focus on United States 2018 brings you the entire concept of energy efficiency, analyzing the basics, understanding the concept of energy efficiency, the benefits of energy efficiency, effect on electric utilities, market failures, business opportunities, cost effectiveness of energy efficiency programs, methods on how one can accelerate energy efficiency, and much more. Looking at Energy Efficiency – Focus on United States 2018 takes a look at this vastly unexplored field in the energy industry in this comprehensive and intelligent analysis.

## Contents

### **A. EXECUTIVE SUMMARY**

### **B. DEFINITION AND IMPORTANCE OF ENERGY EFFICIENCY**

- B.1 Terminology
- B.2 Efficiency along Energy Conversion Chains
- B.3 Energy Efficiency and Decarbonization
- B.4 Service Redefinition
- B.5 Historic Summaries of Potential
- B.6 Discontinuous Technological Progress

### **C. CONCEPT OF ENERGY EFFICIENCY**

### **D. MEASURING ENERGY EFFICIENCY**

- D.1 Market-Basket Approach
- D.2 Limitations of the Market-Basket Approach
- D.3 Comprehensive Approach
- D.4 Limitations of the Comprehensive Approach

### **E. ANALYZING THE BENEFITS OF ENERGY EFFICIENCY**

- E.1 Indirect Benefits from Qualitatively Superior Services
- E.2 Leverage in Global Fuel Markets
- E.3 Buying Time
- E.4 Integrating Efficiency with Supply
- E.5 Gaps in Engineering Economics

### **F. ELECTRIC UTILITIES AND ENERGY EFFICIENCY**

- F.1 Energy Efficiency in Production and Distribution of Electricity
- F.2 Demand-Side Management
- F.3 Economic Benefits

### **G. ENGINEERING VS. ECONOMIC PERSPECTIVES**

### **H. DIMINISHING VS. EXPANDING RETURNS TO INVESTMENTS IN ENERGY**

## **EFFICIENCY**

- H.1 Empirical Examples
- H.2 Right Steps in the Right Order

## **I. MARKET FAILURES AND BUSINESS OPPORTUNITIES**

### **J. THE EFFECTIVENESS AND COST OF ENERGY EFFICIENCY PROGRAMS**

- J.1 Demand Side Management
- J.2 Voluntary and Information Programs
- J.3 Effectiveness and Cost of These Programs

### **K. WAYS TO ACCELERATE ENERGY EFFICIENCY**

- K.1 Historical and Good Methods
- K.2 New and Better Methods
- K.3 De-emphasizing Traditionally Narrow Price-Centric Perspectives

### **L. NEED FOR ENERGY EFFICIENCY INVESTMENT FINANCING INTERVENTIONS**

- L.1 Delivery of Energy Efficiency Financing is an Institutional Development Issue
- L.2 Marketing Energy Efficiency Concepts
- L.3 Options for Financing Energy Efficiency
- L.4 Increasing Energy Efficiency Project Investment

### **M. NATURAL GAS AND ENERGY EFFICIENCY OPPORTUNITIES**

### **N. RESEARCH AND DEVELOPMENT IN ENERGY EFFICIENCY – FOCUS ON US DOE**

- N.1 Motivation for R&D
- N.2 Issues in R&D
- N.3 Findings from Present-day R&D Programs

### **O. PRICES, ENERGY USAGE, AND INVESTMENT IN ENERGY EFFICIENCY**

- O.1 Evidence from Policies Already Applied
- O.2 Policy Mix to Deliver High-Volume Savings at Low Cost

- O.3 Regulation
- O.4 Fiscal and Other Financial Incentives
- O.5 Voluntary Agreements
- O.6 Social Objectives
- O.7 Future Costs and Potential

## **P. ENERGY EFFICIENCY IN THE LATEST BUDGET**

- P.1 DOE Budget
- P.2 EPA Budget
- P.3 Efficiency Standards for Consumer and Commercial Products
- P.4 Efficiency Goals for Federal Buildings
- P.5 Tax Incentives for Efficiency and Conservation
- P.6 Energy Efficiency Tax Revenue Effect

## **Q. ENERGY EFFICIENCY'S ROLE IN ENERGY SECURITY, BY FUEL**

- Q.1 Electricity Demand-Side Management (DSM) To Improve Reliability
- Q.2 Natural Gas Conservation through Energy Efficiency in Buildings and Equipment
- Q.3 Petroleum Conservation through Energy Efficiency in Vehicles

## **R. ENERGY EFFICIENCY PROGRAMS TARGETED AT CLIMATE CHANGE**

- R.1 Energy Efficiency and Carbon Dioxide Emissions Projections
- R.2 International Context and Policy
- R.3 United Nations
- R.4 Group of Eight (G8) Industrialized Nations
- R.5 U.S. Climate-Focused Energy Efficiency Programs
- R.6 Domestic Programs
- R.7 Foreign Assistance Programs
- R.8 California's Regulatory Action on Automobile CO<sub>2</sub> Emissions Promoting Energy Efficiency

## **S. CASE STUDIES**

- S.1 California
- S.2 Iowa
- S.3 Florida
- S.4 Massachusetts

## T. GLOSSARY OF TERMS

## List Of Figures

### LIST OF FIGURES & TABLES

#### LIST OF FIGURES

Figure 1: To deliver one unit of flow in the pipe requires about 10 units of fuel at the power plant, thus those 10-fold compounding losses can be turned around backward, yielding 10-fold compounding savings of fuel for each unit of reduced friction or flow in the pipe.

Figure 2: Diminishing Returns Can Be True for some Components

Figure 3: Optimizing Whole Systems for Multiple Benefits Can Often “tunnel through the cost barrier” Directly to the Lower-Right-Corner Destination, making very Large Energy Savings Cost less than Small or no Savings

Figure 4: Historical Energy Intensity of the U.S. Economy

Figure 5: Actual and Projected U.S. Carbon Emissions

Figure 6: Energy Efficiency Potential

Figure 7: Percentage of Consumption by End-Use in Buildings, 2017

Figure 8: Percentage of Primary Energy used in the Manufacturing Sector by Major Industrial Category

Figure 9: Fuel Used in the U.S. Transportation Sector, 2017

Figure 10 California’s Investments in Energy Efficiency

Figure 11: Changes in Energy per GDP Decomposed into Changes in Energy Service per GDP & Energy Intensity Effect

Figure 12: Energy Prices, 1980-2030

Figure 13: Energy Use Per Capita & Per Dollar of Gross Domestic Product, 1980-2030

Figure 14: Total Energy Production & Consumption, 1980-2030 (quadrillion Btu)

Figure 15: Energy Expenditures in the U.S. Economy, 1990-2030

Figure 16: Energy Use per Capita and per Dollar of Gross Domestic Product, 1980-2030

Figure 17: Primary Energy Consumption by Sector, 1980-2030 (quadrillion Btu)

## List Of Tables

### LIST OF TABLES

Table 1: EPA Funding for Climate Protection Energy Efficiency Programs (CPP)

Table 2: EPACT Energy Efficiency Standards

Table 3: H.R. 6, Tax Revenue Effect (\$ Billion)

## I would like to order

Product name: Looking at Energy Efficiency - Focus on United States 2018

Product link: <https://marketpublishers.com/r/L4ED485A649EN.html>

Price: US\$ 750.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/L4ED485A649EN.html>