

SYNOPSIS

Rising energy costs and concerns about grid reliability prompt consumer interest in better managing their energy consumption. Utilities and energy providers seek to ramp up engagement in demand response programs and look for new opportunities to provide services to the home.

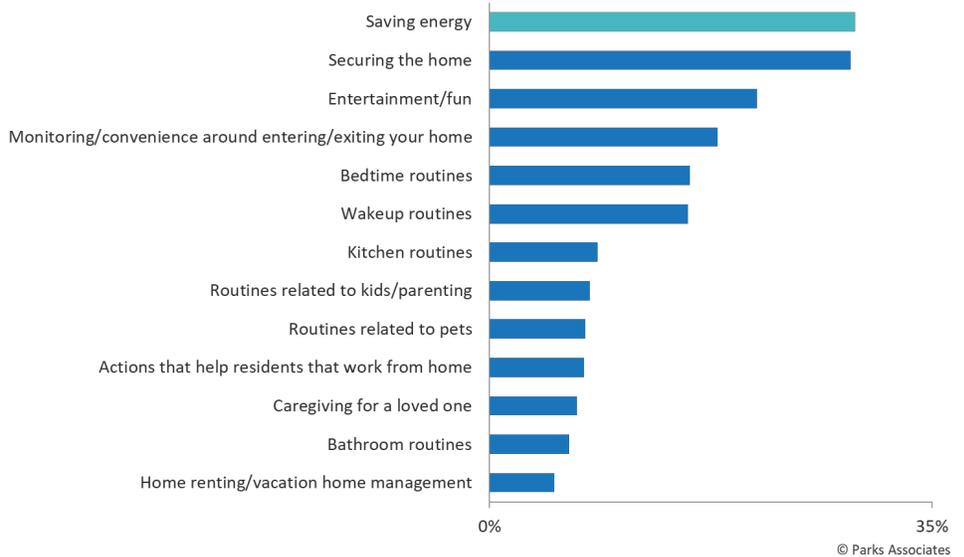
This research examines how smart home and smart energy devices are moving into the mainstream and the opportunities that move opens for manufacturers, energy providers, and other industry players. It includes trending adoption, purchase intention, and shifting consumer perspectives on energy monitoring solutions, home solar, battery storage, and demand response programs.

Number of Slides: 72

AUTHORS

Home Energy Management: Generation, Consumption, Demand

Purpose of Smart Home Device Integration



Key questions addressed:

1. To what extent are internet households impacted by rising energy costs?
2. Has familiarity with energy programs and energy devices increased?
3. What is the current adoption of energy devices, including smart thermostats, home solar, home battery storage, and electric vehicles?
4. How are consumer perceptions of utility programs changing? Has participation in demand response grown?
5. What is the interest in next-gen solutions, such as whole-home monitoring and solar/storage systems.
6. Are smart thermostats and solar systems meeting consumer expectations?

“In this push-pull environment, the most immediate opportunity lies in helping consumers make small, accessible changes that can help them save on their energy costs. Smart thermostats and demand response programs fit the bill.”

— Jennifer Kent, VP, Research, Parks Associates

Industry Analyst

Jennifer Kent, VP, Research

Consumer Analytics Team

Yilan Jiang, Senior Director of Consumer Analytics

Sharon Jiang, Consumer Insights Analyst II

Yuting Mu, Consumer Insights, Analyst I

CONTENTS

Survey Methodology and Definitions

Key Terms and Definitions

Introducing Energy Monitoring

Executive Summary

- Avg. Monthly Electricity Expenditure
- “I actively work to reduce my energy consumption at home.”
- Smart Thermostat Ownership
- Demand Response Participation
- Consumer Demand for Better Energy Insights
- Top 4 Valuable Tools of Home Energy Consumption Management
- Monitoring Home Energy Usage Through Other Applications
- Ownership of Major Home Energy Equipment
- Vehicle Purchase Intentions: 12 Month Outlook
- Type of Vehicle Intenders
- Incentive for Solar Purchasing
- Solar Purchase Intentions
- Battery Storage Adoption

Energy Costs and Consumption

- Average Monthly Expenditure
- Average Electricity Price to Residential Customers
- Consumer Perception of Monthly Electricity Bill
- Consumer Perception of Monthly Electricity Bill by Income
- Consumer Perception of Monthly Electricity Bill by Family Size
- Consumers’ Perception Regarding Electricity Bill by Home Size
- Attitudes Towards Home Energy Consumption
- Not Enough Time/Info to Reduce Energy By Households with Kids
- Current Integration of Multiple Smart Home Devices Work Together
- Purpose of Smart Home Device Integration

Smart Thermostats: Adoption, Intentions, Estimated Savings

- Smart Thermostat Adoption and Recent Purchases
- Overall Smart Thermostat Purchase Intention
- Overall Smart Thermostat Purchase Intention among Those Likely to Move in the next 6 Months

- Overall Smart Thermostat Purchase Intention among Those Likely to Start a Home Renovation in the Next 6 Months
- Net Promoter Score: Smart Energy Devices
- Smart Thermostat NPS, Trending

Energy Services and Demand Response Programs:

Familiarity & Engagement

- High Familiarity with Energy Programs Offered
- Adoption of Energy Programs
- Energy Program Use
- Energy Program Use Details
- Demand Response Program Use Details
- Top Motivation to Participate in Demand Response Program
- Incentive to Participate in Demand Response Program
- Estimated Number of Demand Response Events Called in Past 12 Months
- Duration of Demand Response Event
- Demand Response Event Experience
- Reasons for not Participating in Demand Response Program
- Barriers to Demand Response Participation by Gender
- Barriers to Demand Response Participation by Age
- Reasons for Churning Demand Response Program
- Products Consumers are Willing to Adjust Themselves During Peaks
- Products Consumers Will Allow Manufacturer or Utility to Adjust During Peaks
- Willingness to Adjust Products During Peaks, Among Smart Product Owners
- Likelihood of Allowing Electricity Provider to Adjust Thermostat with Incentives
- Interest in DR program incentives by Age and Households Income

Energy Monitoring: Preferences and Concepts

- Receive Electricity Consumption Breakdown from Energy Provider
- Frequency of Reviewing Consumption Breakdown
- Electricity Consumption Breakdown Review Methods
- Information Reviewed by Methods of Reviewing Energy Breakdown

- Monitoring Home Energy Usage Through Other Applications among All US Internet Households
- Monitoring Home Energy Usage Through Other Applications among Owners of Specified Devices
- Valuable Tools of Home Energy Consumption Management
- Interest in Energy Management Tools, by Current Use of Provided Consumption Breakdowns
- Interest in Energy Management Tools, by Smart Home Device Adoption
- Interest in Energy Monitors
- Preferred Energy Consumption Solutions
- Preferred Energy Consumption Solutions by Demographic
- Likelihood of Purchasing Pro-Install Retail-Time Energy Monitor

Power at Home: EVs, Solar, Smart Electric Panels

- High Familiarity with Major Home Energy Equipment
- Ownership of Major Home Energy Equipment
- High Intention of Purchasing Major Home Energy Equipment

- Vehicle Purchase Intentions: 12 Month Outlook
- Type of Vehicle Intenders

Selling Solar and Storage

- Solar Panel Purchase Motivation
- Purchase Drivers of Solar Panels
- Solar Panel Acquisition Method
- Satisfaction Level with Solar Purchase and Performance
- Reasons for Not Purchasing Solar Power Products
- Incentive for Solar Purchasing
- Solar Ownership Among EV and Smart Thermostat Owners
- Solar Purchase Intentions Among EV and Smart Thermostat Owners
- Adoption of Battery Storage Among Solar PV Owners
- Frequency of Using Home Battery to Power Home
- Home Battery Purchase Timing

Appendix

ATTRIBUTES

Parks Associates
5080 Spectrum Drive
Suite 1000W
Addison, TX 75001

972.490.1113 phone
parksassociates.com
sales@parksassociates.com

Published by Parks Associates
© 2024 Parks Associates
Addison, Texas 75001

All rights reserved. No part of this book may be reproduced, in any form or by any means, without permission in writing from the publisher.

Printed in the United States of America.

Disclaimer

Parks Associates has made every reasonable effort to ensure that all information in this report is correct. We assume no responsibility for any inadvertent errors.