



Applied Public Policy Research  
**APPRISE**  
Institute for Study and Evaluation

# APPRISE Mission

APPRISE is a nonprofit research institute dedicated to collecting and analyzing data and information to assess and improve public policies and programs. APPRISE conducts research for federal and state government agencies, utility companies, and nonprofit organizations.

Our research focuses on programs that deliver bill payment assistance, energy education, budget counseling and referral, and energy efficiency services to low-income households; and on market transformation programs that provide residential, commercial, and industrial customers with information and incentives that encourage investment in energy efficient projects.

## Research Areas

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- Energy Efficiency
- Financial and Bill Payment Assistance
- Market Transformation
- Economic and Policy Analysis
- Survey Research

## Research Activities

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- Process Evaluation
- Impact Evaluation
- Data Tracking System Research
- Needs Assessment/Market Characterization
- Performance Measurement

# APPRISE Principals

**David Carroll** is the President and cofounder of APPRISE. Mr. Carroll has a Master of Public Affairs from Princeton University's Woodrow Wilson School of International and Public Affairs and over 20 years of experience in the design and implementation of energy research and evaluation projects.

Mr. Carroll has worked with the U.S. Energy Information Administration to develop statistics on energy use, and with the federal LIHEAP office to develop information on energy issues that affect low-income households. He has conducted market transformation research and evaluated residential and commercial market transformation programs. Mr. Carroll has directed evaluations of low-income usage reduction programs and affordability programs for utilities and government agencies around the country.

Mr. Carroll is an active contributor to the National Low Income Energy Consortium Conference and the Affordable Comfort Conference. He also serves on the planning committee for the ACEEE Summer Study Conference.

**Jacqueline Berger** is the Director of Program Evaluation and cofounder of APPRISE. Dr. Berger has a Ph.D. in Economics from Princeton University and 15 years of experience in the design and implementation of research and evaluation projects.

Dr. Berger's areas of expertise are program evaluation, study design, performance measurement, data analysis, and multivariate statistical techniques. Dr. Berger has conducted research for the U.S. Departments of Energy, Health and Human Services, and Education, as well as for state offices, utility companies, and nonprofit organizations. She has directed energy efficiency and energy affordability program evaluations for utilities and state agencies around the country.

Dr. Berger is a regular presenter at the Affordable Comfort Conference and the National Low Income Energy Consortium Conference. She serves as a track leader for the Affordable Comfort Conference and is on the editorial board of the NLIEC's Journal of Energy Assistance.

# APPRISE Clients

## Government

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- CA Public Utilities Commission
- CO Department of Human Services
- CO Governor's Energy Office
- IL Department of Healthcare and Family Services
- MD Department of Human Resources
- NH Office of Energy and Planning
- NJ Board of Public Utilities
- NY Office of Temporary and Disability Assistance
- NYSERDA
- OH Department of Development, Office of Community Services
- OH Department of Development, Office of Energy Efficiency
- OR Housing and Community Services
- U.S. DOE, Energy Information Administration
- U.S. DHHS, Office of Community Services
- WA Department of Community, Trade, and Economic Development

## Nonprofit

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- AARP
- Energy Coordinating Agency of Philadelphia
- Missouri Association for Community Action
- National Energy Assistance Directors' Association
- New Jersey SHARES
- Operation Fuel
- Rutgers Center for Energy, Economic, and Environmental Policy
- Vermont Energy Investment Corporation

## Utilities

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- Atlantic City Electric
- Citizens Gas & Coke Utility
- FirstEnergy
- New Jersey Natural Gas
- Niagara Mohawk Power Corporation
- Northern Indiana Public Service Company
- NUI / Elizabethtown Gas
- Orange and Rockland Utilities
- PECO
- PG Energy
- Philadelphia Gas Works
- PPL Electric Utilities
- PSE&G
- South Jersey Gas
- T.W. Phillips Gas and Oil Company
- Vectren Energy Delivery
- WE Energies

# Research Activities

APPRISE conducts varied research activities to develop information and recommendations for policy and program development and enhancement.

## **Process Evaluation**

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Our comprehensive services include documentation of program procedures, assessment of program design feasibility and population served, and analysis of program implementation. Information is collected through in-depth manager and staff interviews, participant surveys, program database analysis, and on-site observations and inspections.

## **Impact Evaluation**

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We design and implement research that furnishes reliable estimates of program impacts. Our research includes the development of effective comparison groups, careful analysis of attrition bias, and systematic measurement of a program's gross and net impacts to effectively measure a program's cost-effectiveness for clients, ratepayers, and utilities.

## **Data Tracking System Research**

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APPRISE documents data requirements for program management, operations, reporting, and evaluation; analyzes the consistency, sufficiency, accessibility, accuracy, and efficiency of existing data systems; and recommends needed data, reports, and system accessibility requirements.

## **Needs Assessment / Market Characterization**

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We conduct needs assessment research to define the size of the eligible population for public programs and to assist policymakers and program managers to allocate resources and more effectively reach and serve the eligible population.

## **Performance Measurement**

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APPRISE develops logic models and measurement procedures to assess program performance. We analyze program and outcome data to estimate short-term and long-term program impacts.

# Research Areas

APPRISE's extensive research and evaluation experience spans the five research topics described below.

## **Energy Efficiency**

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The federal government, state governments, regulatory bodies, and utility companies manage programs that provide energy efficiency services to low-income households. The aim of these programs is to reduce energy usage and increase the affordability of energy bills.

## **Financial and Bill Payment Assistance**

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Many different sources of energy bill payment assistance are available for low-income families. Federal, state, utility, and charitable sources of assistance include LIHEAP, state-funded benefits, ratepayer-funded programs, and hardship funds.

## **Market Transformation**

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Market transformation programs promote the manufacture, purchase, and use of energy-efficient technologies through customer, manufacturer, and installer education, incentives, rebates, and tax credits. The primary goal of these programs is to overcome market barriers to the adoption of energy-efficient technologies.

## **Economic and Policy Analysis**

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Program developers and managers often call upon APPRISE to provide background information and research support when assessing the need for assistance programs and designing or refining program services. APPRISE provides information and data-driven recommendations to program administrators and decision-makers.

## **Survey Research**

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APPRISE survey experience includes research design, sample frame development and sample selection, survey design and testing, data collection implementation, and integrated analysis of survey data and other available information. Our capabilities include large-scale multistage area probability sample surveys, program-level customer surveys, and technical focus groups. APPRISE implements surveys as part of comprehensive research designs and as stand-alone data collection and analysis services.

# Process Evaluation Research

**Summary:** Comprehensive services include documentation of program procedures, assessment of program design feasibility and population served, and analysis of program implementation.

## Research Activities

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- **Data and Document Review:** Review and analysis of program history, goals, and policy statements; contract funding and staff time allocation; production and service delivery areas; and quality and reliability of program operations.
- **Database Analysis:** Development of program performance statistics.
- **Interviews and Surveys:** In-depth executive, staff, and customer interviews; customer surveys; and focus groups.
- **Observations and Inspections:** Direct observation of outreach, recruitment, intake, scheduling, service delivery, and follow-up services; and post service inspection.

## Sample Projects

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- **Colorado Energy Efficiency Program:** Research found that measure installation rates were higher than originally anticipated, and that more careful assessment of client need may result in more cost-effective program investments.
- **New Jersey Universal Service Program:** Survey research revealed that program participants did not understand program services and that different client education strategies should be tested.
- **Ohio Electric Partnership Program:** Research conducted during initial program implementation helped refine program design and identify key provider training needs.

# Impact Evaluation Research

**Summary:** We design and implement research that furnishes reliable estimates of a program's gross and net impacts.

## Research Activities

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- **Research Design:** Development of a research strategy that will yield the most accurate estimate of the program's impact.
- **Comparison Groups:** Use of future program participants or other similar households or businesses to control for confounding factors.
- **Data Attrition Analysis:** Analysis of the extent and causes of data attrition and its potential bias on impact estimates.
- **Weather Normalization:** Adjustment for the weather's impact on energy usage.
- **Free Ridership/Spillover:** Analysis of baseline market practices and the net-to-gross ratio.
- **Cost Effectiveness Analysis:** Assists program managers' allocation of scarce resources.

## Sample Projects

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- **New Jersey Energy Star Homes Evaluation:** An innovative research design will effectively control for differences between ENERGY STAR and nonparticipating homes to furnish an accurate estimate of program impacts.
- **PECO LIURP Evaluation:** Research measured the impact of energy efficiency services on energy usage, energy bills, and payment compliance. Findings led program managers to revise measure selection guidelines.
- **NJ SHARES Evaluation:** APPRISE's impact analysis helped the organization assess grant levels and develop assistance guidelines.

# Data Tracking System Research

**Summary:** This research helps program managers improve the efficiency and effectiveness of their services. The process includes documenting data requirements for program management, operations, reporting, and evaluation; analyzing the consistency, sufficiency, accessibility, accuracy, and efficiency of existing data systems; and recommending needed data, reports, and system accessibility.

## Research Activities

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- **Program Manager In-Depth Interviews:** Develop information needs and document current data system structure and content.
- **Operations Staff In-Depth Interviews:** Determine current data sources and data needs.
- **Database Review:** Review manuals and observe data system use.
- **Data Tracking Reporting:** Document existing systems, information, and data; analyze system needs; and recommend implementation procedures.

## Sample Projects

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- **New Jersey Universal Service Program:** APPRISE developed specifications and an implementation plan to address the Board of Public Utilities' information needs for the NJ ratepayer-funded low-income bill payment assistance program.
- **New Jersey Comfort Partners Program:** We helped program managers to utilize and improve existing databases when seven utility low-income energy efficiency programs merged.
- **Colorado Energy Efficiency Program:** When Colorado implemented this program, APPRISE assessed data needs for program operations, short-term assessments, and long-term impact analysis; and developed a data-driven framework to help provider agencies assess the potential cost-effectiveness of proposed program treatments.

# Needs and Market Assessment

**Summary:** Research to estimate the size of the eligible program population, and assist policymakers and program managers to allocate resources and more effectively reach and serve the eligible population. Eligible populations may be defined by income, energy burden, household characteristics, business characteristics, and geographic area. Publicly available data sets utilized include the American Community Survey, American Housing Survey, Current Population Survey, Decennial Census, Residential Energy Consumption Survey, and Residential Finance Survey.

## Research Activities

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- **Population and Needs Analysis:** Statistical analysis to estimate the population eligible for programs and the funding required to serve the eligible population.
- **Reporting:** Documentation of research methods, program eligibility estimates, program participation rates, and program funding needs.

## Sample Projects

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- **California Low-Income Needs Assessment:** Analysis of the energy needs of low-income households in California. Results will be used to set policy for the California Alternate Rates for Energy and the Low-Income Energy Efficiency Programs.
- **Arizona Energy Poverty Research:** Analysis of energy poverty in the state, the Phoenix metropolitan area, and specific neighborhoods. APPRISE found that neighborhoods with very similar poverty and program eligibility characteristics had widely different demographic and housing characteristics that affect optimal program design and outreach efforts.
- **National Multi-Sponsor Study of Low-Income Ratepayer-Funded Programs:** Analysis of the population in need of energy assistance and energy efficiency services in 14 states. The analysis will help policymakers to design programs that address the energy needs of low-income households in their states.

# Performance Measurement

**Summary:** APPRISE develops logic models and measurement procedures to assess program performance. We analyze program and outcome data to estimate short-term and long-term program impacts.

## Research Activities

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- **Logic Model Development:** Conduct research to develop a comprehensive understanding of the program and the mechanisms for impact. Design the model that describes program assumptions, inputs, immediate outcomes, and final program impacts.
- **Performance Measure Development:** Formulate indicators to demonstrate how programs impact participants.
- **Data and Indicator Model Development:** Map specific program outcomes to performance indicators and data.
- **Performance Measurement Calculation:** Analyze gross program impact and adjust estimates to account for intervening and exogenous factors. Assess how a program performs over time and with changes in program design and implementation.

## Sample Projects

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- **PGW CRP:** Performance measures for the low-income payment assistance program included percent of income spent on natural gas, percent of bills paid, number of collections actions, and number of service terminations.
- **NH REACH Program:** Performance measures for the furnace cleaning and repair program included energy usage, energy insecurity, and furnace safety and efficiency.
- **LIHEAP Program:** APPRISE has provided performance measurement consulting to the federal LIHEAP office for several years. This work has focused on meeting the requirements of the Government Performance Results Act (GPRA) and the Performance Assessment Rating Tool (PART). One example of this work is the development of a statistical model to determine whether the availability of LIHEAP funding is related to mortality during periods of intense heat.

RESEARCH  
ANALYSIS  
EVALUATION  
POLICY  
SURVEYS  
PERFORMANCE MEASUREMENT  
PROGRAM IMPACT  
PROCESS ANALYSIS  
COST-BENEFIT ANALYSIS  
ECONOMIC ANALYSIS

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