



## ENERGY

# CONSUMER BEHAVIOR RESEARCH

DNV GL brings clarity and rigor to the multi-layered world of consumer behavior. We provide end to end planning and evaluation of the new generation of behavior-based programs and services.

Building on over 35 years of program planning and evaluation experience, DNV GL combines depth of insight with state of the art approaches in applied social science methods, including marketing, economics, psychology, as well as data collection and analysis.

### The Business Beyond the Buzz

As long as there have been demand-side programs, planners have looked for the most effective ways to motivate customers to adopt new technologies and change technology-using practices. The new generation of behavioral approaches brings new opportunities and new challenges.

New designs seek to reach deeper savings goals by changing attitudes and behaviors. Many build experimental design into programs to measure small effects rigorously and credibly over large populations.

Behavioral approaches are also seen as key to harvesting value from Advanced Metering Infrastructure (AMI) investments, by taking advantage of AMI's informational potential and designing new rates that make use of hourly data.

### BENEFITS FROM DNV GL EXPERIENCE

- 35+ years developing and evaluating programs
- Understand program strengths and limitations
- Knowledge of small and large customers
- Understand how to change behavior and measure the change
- Able to determine effects when experimental designs don't apply

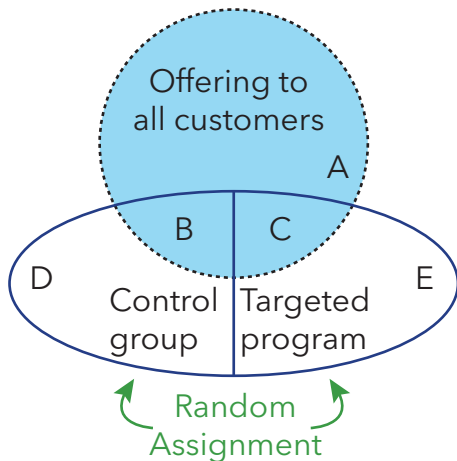
## Program Planning

Our program planning services are grounded in decades of experience working across the full range of decision-makers and stakeholders. We draw on experience as designers, implementers, and evaluators. We've worked with programs ranging from educational to audits to rebates to direct install, from pure upstream to pure downstream to multipronged. We know the history and experience of old and new program models. We understand the factors, from market to messaging, from design to delivery, that drive program success.

## Measurement Verification and Evaluation

For programs with experimental design baked into the program structure, DNV GL can provide rigorous assurance that the design is well-framed and properly applied—from initial design to verification of implementor processes to directly conducting random assignment procedures. For the programs that can't be constructed for measurements based on experimental design, we use the full range of quasi-experimental techniques.

Understanding what random assignment can and can't tell us.



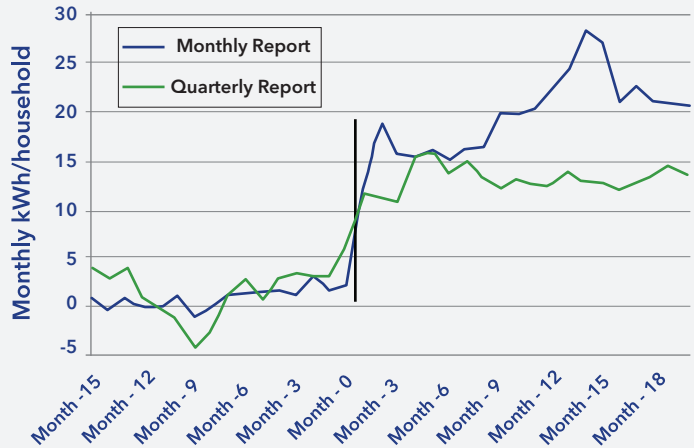
Determining savings in these contexts, we provide both high-level results and deeper dives. Our work addresses savings patterns by month and season, and the persistence of savings over multiple years as messages are continued or stopped. We determine the overlap with both trackable and upstream programs to avoid double counting in portfolio savings claims. We deploy end-user and upstream surveys to test and validate program logic.

Our methods integrate data from diverse sources, drawing in utility, government, and proprietary data bases. We construct systematic estimates of influence using discrete choice modeling and cross-regional regressions.

We use formal analytic techniques as well as informed judgment and interpretation. And we put the right bounds around how well we know what we know.

Contact us to learn more about how DNV GL goes beyond pure impact measurement, to explore the why behind the what, to understand characteristics of higher savers, arm to our clients with the insight they need to move more customers to higher energy savings.

### SAVINGS FROM INFORMATIONAL REPORTS, BASED ON RANDOMIZED TREATMENT-CONTROL DESIGN.



#### Current and Recent Program Evaluation Clients

- National Grid New York
- Massachusetts Energy Efficiency
- Program Administrators
- California Public Utilities Commission
- Alliant Energy
- Iberdrola
- Puget Sound Energy

#### ABOUT DNV GL

DNV GL is a global authority in business and technical consultancy, testing and inspection, emissions reductions, certification, and risk management across the energy value-chain.

With over 16,000 experts around the world, DNV GL is committed to driving the global transition toward a safe, reliable, efficient, and clean energy future. [www.dnvgl.com](http://www.dnvgl.com)