

Rhode Island Custom Design Approach Impact Study

2013-2015 Program Years

In the Custom Design Approach (CDA), National Grid vendors meet with customers to review building design plans, discuss efficiency options, and assess incentives available to install them. Incorporating efficiency into the design of new buildings ensures the efficient use of energy throughout the buildings' lifetime.

The study produced rigorous energy and peak demand results

- This study visited buildings in Rhode Island and combined them with buildings in Massachusetts to get rigorous results at less cost.
- Metering and inspections were performed at all buildings.
- Building simulation models calibrated to actual consumption data were used to estimate energy and peak savings.



Key Findings

Energy Impacts: The program initially estimated energy savings of **12,900 MWh**. The evaluation found the program actually saved **6,106 MWh**. Savings were found to be lower than what was initially estimated for two primary reasons:



In the commercial new construction market, many customers are installing efficient lighting as a common practice.



Building systems and controls were found to not be operating as designed and expected.

Takeaways



National Grid and its vendors are working with building owners and developers to build efficient buildings.



LED lighting and controls are becoming commonplace in new construction. These changes need to be accounted for in the initial program savings estimates.



Ensuring building heating, cooling, and other systems are operating properly is a key part of achieving program energy savings.