

## Energy Design Assistance Project Tracker (EDAPT)

Submitted by the National Renewable Energy Laboratory (NREL) and Xcel Energy

**Background:** Utility design assistance programs provide financial incentives for prospective new building owners to exceed minimal code compliance. These incentive programs can be highly effective, because influencing the design process of new construction in its early and conceptual phases is the most effective means to achieve the most energy-efficient design at the least cost. As building codes become more stringent, the cost effectiveness of these important incentive programs is challenged.

**Solution:** NREL worked with Xcel Energy to design and implement the Energy Design Assistance Project Tracker (EDAPT). EDAPT is a web-based project management tool that automates communication, quality checking, reporting, and tracking of utility design assistance projects to save time and cost for all stakeholders (Figure 1). It is tightly integrated with DOE's OpenStudio building energy modeling platform, to produce more consistent, higher-quality outcomes.

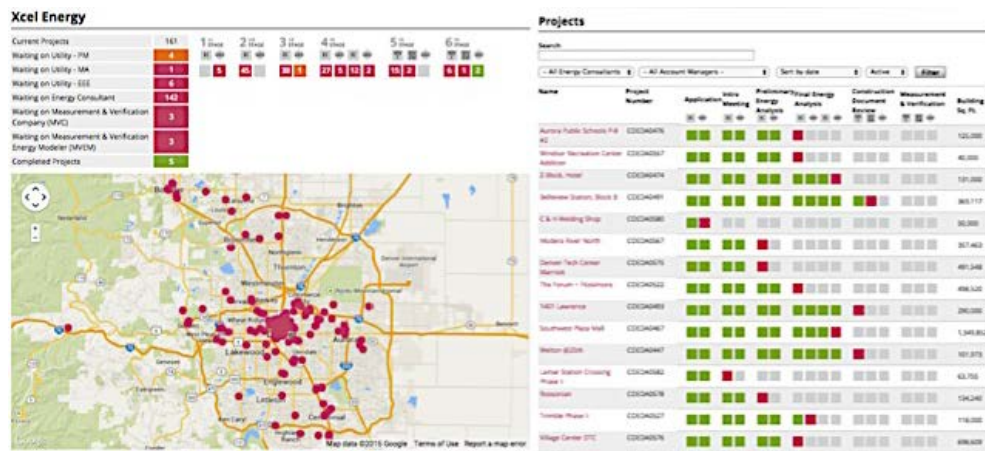


Figure 1: EDAPT dashboard views for Xcel Energy's Design Assistance Program

**Key Outcomes:** EDAPT is in its second year of use at Xcel Energy. Xcel estimates that it has saved ratepayers roughly \$500,000 per year in administrative costs, while increasing the number of projects in play. Over 160 projects are currently being tracked, and 40 have been entirely processed through the program life cycle (Figure 2). In 2014 the Department of Energy remunerated Xcel ratepayers' investment, making EDAPT available for use by utilities across the country. NREL is currently working with Austin Energy, CPS Energy, the Energy Trust of Oregon, and other utilities to replicate Xcel's success and increase new construction energy efficiency across the country, enabling up to 3 quadrillion Btu (Quads) of additional energy savings through 2030.

Utility	Total # of Bldgs	Total ft <sup>2</sup>	Predicted Electric Savings (MMBtu)	Predicted Gas Savings (MMBtu)	New Construction # of Bldgs	New Construction ft <sup>2</sup>	Retrofit # of Bldgs	Retrofit ft <sup>2</sup>
Xcel Energy	40	8,475,820	60,596	28,217	40	8,475,820	0	0

Building Type	Total # of Bldgs	Total ft <sup>2</sup>	Predicted Electric Savings (MMBtu)	Predicted Gas Savings (MMBtu)	New Construction # of Bldgs	New Construction ft <sup>2</sup>	Retrofit # of Bldgs	Retrofit ft <sup>2</sup>
Mixed-use	5	1,721,432	13,507	4,796	5	1,721,432	0	0
Multifamily	9	2,436,244	15,393	9,903	9	2,436,244	0	0
Office	8	2,442,380	19,652	1,660	8	2,442,380	0	0
Aggregated for Privacy	18	1,875,764	12,044	11,858	18	1,875,764	0	0

Figure 2: EDAPT's completed project summary for Xcel Energy as of 4/15/15