

Introduction

The Investor Owned Utilities (IOUs) in the State of Iowa have been administering the Commercial New Construction program since 1999. The IOUs recently commissioned a market study to help them understand how well the Program is reaching the market. The study sought to answer the following questions.

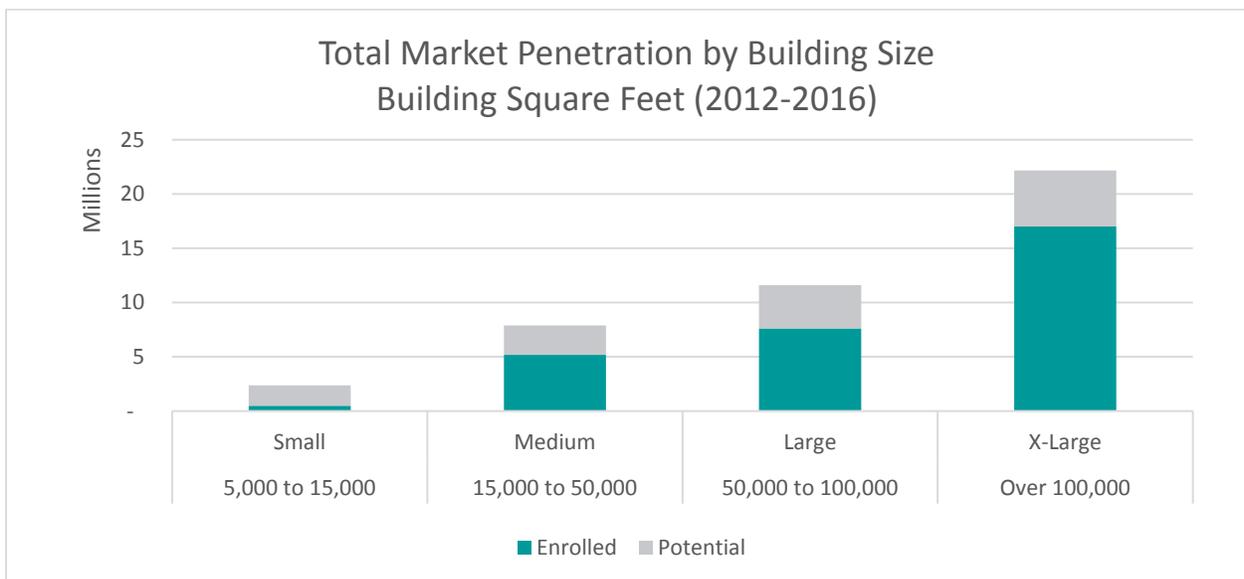
- What is the overall reach of the Program in terms of eligible projects?
- Is the full spectrum of commercial building types participating?
- With multiple utilities, are geographic regions equally represented?
- What are the opportunities for growth?

The study highlighted the persistence and savings achievement of the Commercial New Construction program over the last five years, reaching on average 69% of the eligible square footage across the State while engaging a wide variety of customers and buildings. Customers continue to average 30% energy savings relative to the statewide energy code, even as Iowa has continued to adopt ever more stringent codes. The consistent market penetration of the Program, and the ability of the Program to maintain 30% energy savings, has made the CNC program a reliable part of the Utilities' energy efficiency portfolio.

What is the overall reach of the program in terms of eligible projects?

The study found that the CNC Program reached 69% eligible project area (square feet) over the 2012 to 2016 study period. This market penetration rate is in line with a previous 2011 study and illustrates the continued value the market sees in energy efficiency. The energy design consulting provided by the Commercial New Construction program that helps customers understand the optimal ways to make their energy efficiency investments on projects is one key driver for the market. The incentives from the utilities to offset the increased costs of more efficient equipment is the other key driver that continues to help move the market beyond increasing energy codes. As evidenced by the study, even as energy codes have advanced in the last five years, the market has continued to value the Commercial New Construction program.

The charts below illustrate the growth over time in the different building size ranges as well as the market penetration for each of these size ranges.

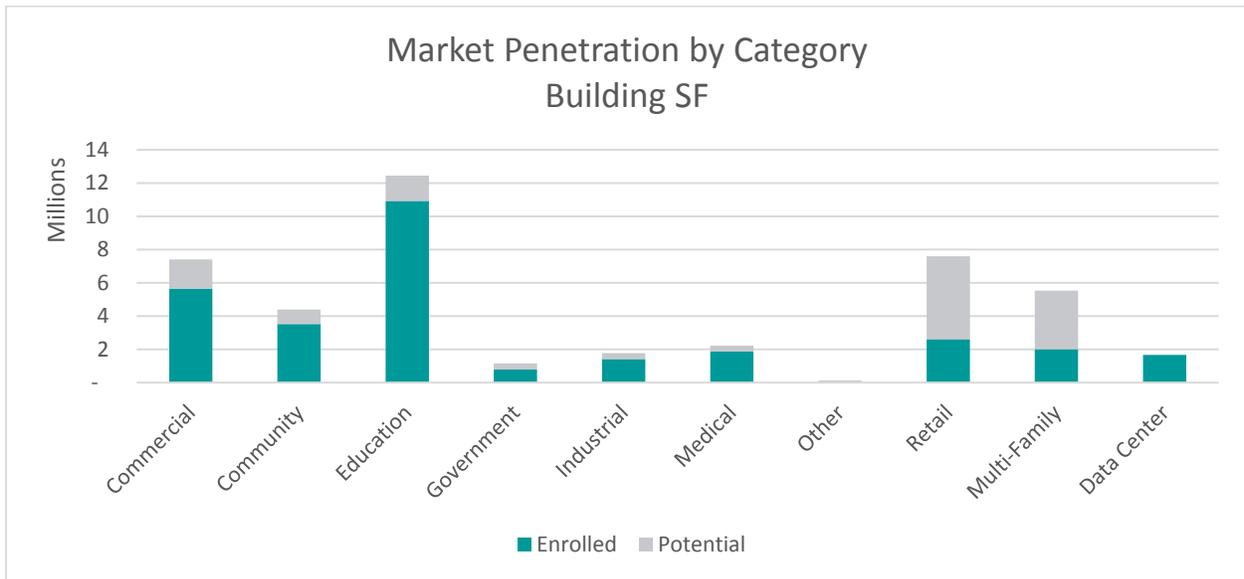


During the five-year period, the Program began accepting buildings down to 5,000 square feet; the previous minimum threshold was 15,000 SF. This increase in allowable program participation leads to additional opportunities to impact the market, providing increased energy savings to customers and the utilities.

The market penetration is similar for medium, large, and extra-large buildings. Small buildings, those 5,000 to 15,000 SF, are newly eligible and thus have room for increased capture moving forward. Furthermore, the overall construction market is growing in all building size ranges. Growth in program participation and energy savings for customers continues as the market grows.

Is the full spectrum of commercial building types participating?

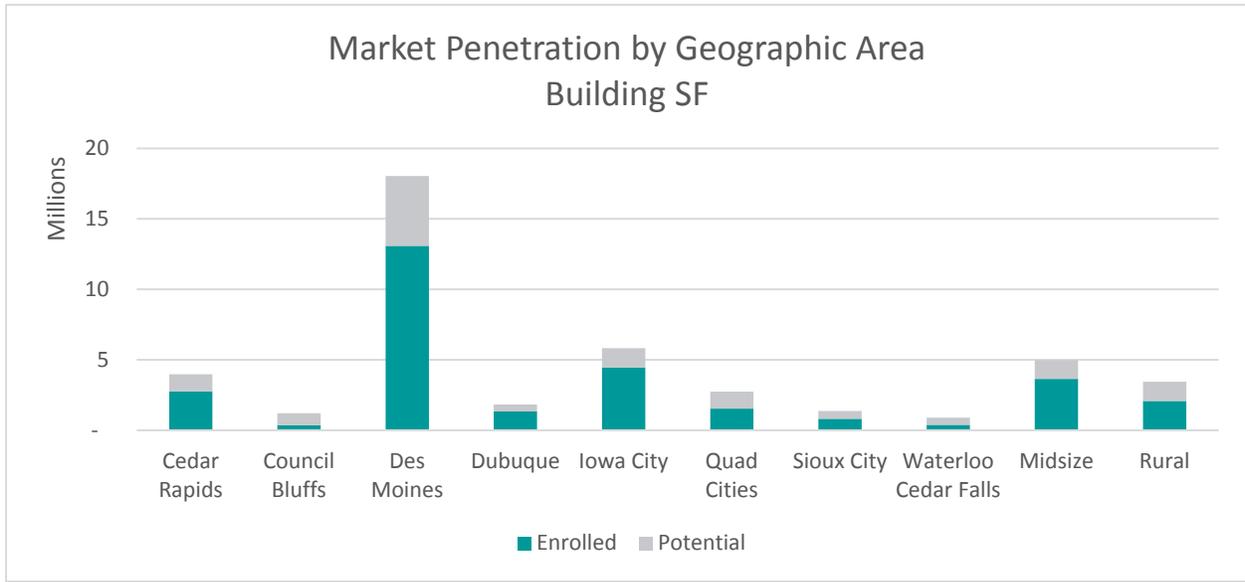
Commercial building types eligible for the Commercial New Construction program were broken down into several categories. As shown in the charts, all eligible building types are participating to varying degrees. The chart below shows how total eligible market compares to participating projects by building type.



The education sector has both the greatest potential and the greatest capture in terms of overall square footage. Retail and multi-family have the greatest potential for growth. As a result of the study, expanded incentive and outreach options are planned for the utilities next five-year plan to ensure greater market capture of multi-family and retail projects.

With multiple utilities are geographic regions equally represented?

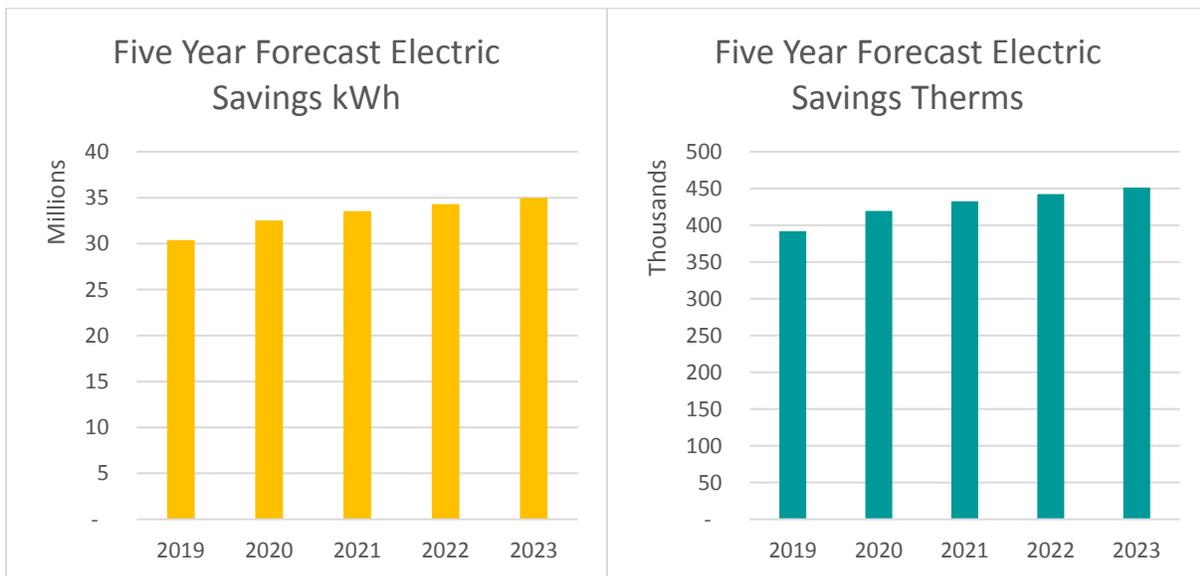
The Program goal is to reach customers across the State in all territories that are served by the IOUs. These are broken down within the study by metropolitan area, non-metro mid-sized communities and rural communities. These breakdowns were based on census definitions. The chart below shows the total eligible square footage and the captured square footage by region across the State.



Overall the market penetration is consistent across the State, with large metropolitan areas, mid-size cities and rural areas all participating. Des Moines is the largest metro region and has both the greatest potential and the greatest number enrolled.

What are the opportunities for growth?

The study looked at data to determine expected building growth by building type within the State. Iowa’s strong building industry is expected to continue with growth in all building types and sizes. The anticipated growth results in the forecasted kWh and natural gas therm savings shown below.



Conclusions

The Commercial New Construction program has been and continues to be very effective at capturing the available market in Iowa. The Program has successfully reached all commercial building types across the entire state. The 69% market penetration rate illustrates the continued demand for energy efficiency analysis and incentives provided by the Commercial New Construction program. As more projects are added, the average savings remains high at 30% beyond the energy code, showing that the Program continues to effectively gain energy savings for all IOU customers.

With the forecasted future, construction growth the savings achieved from the Commercial New Construction program remain key to meeting energy goals.

Study Methodology

The study obtained data on the entire Iowa construction market from Construct Connect Insight (CCI), which is the most complete construction market analysis data available; over 2 million contacts per year with construction industry professionals, covering both public and private projects. CCI develops accurate market forecasts using experienced economists while being an innovation partner with the American Institute of Architects (AIA).

Data was obtained for all projects with a construction start of 2012 to 2016 from CCI. All projects were reviewed for program eligibility, utility service territory, scope of work, size and then matched to projects that had been enrolled or screened for the Commercial New Construction program. Any duplicate projects were removed. The team developed a mapping system to align building types in CCI with those in the Commercial New Construction database. Where square footage data was not available from CCI, the reported project cost and historic building type specific costs per square foot were used to calculate building size for use in the study.