Putting a value on energy efficiency

Energy efficiency's multiple, proven benefits provide more than just energy savings to Alberta

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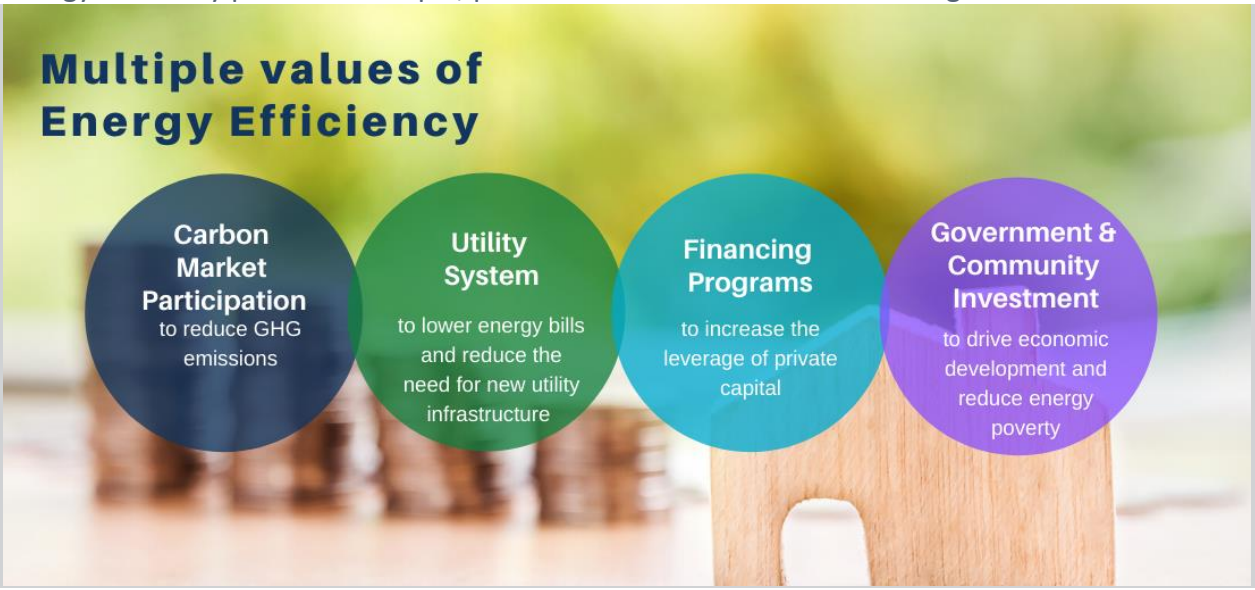
By Monica Curtis, Chief Executive Officer

Over a period measured in months rather than years, Energy Efficiency Alberta drove over $850 million in economic growth in the province. The story of how that happened reveals that success comes from valuing energy efficiency – its role in reducing greenhouse gas emissions, stimulating private-sector investment, and providing the lowest-cost source of energy. Albertans are just

getting started, meaning there's plenty of opportunity for efficiency projects that drive economic development and more.

Across North America, energy efficiency programs have been helping industry, businesses, institutions and households optimize energy use, delivering value to facility owners and managers, service providers, utilities, governments and communities through reduced emissions, lower costs for consumers and utilities, as well as increased economic activity.

Energy efficiency provides multiple, proven values as indicated in the diagram below.



Reducing greenhouse gas emissions

Alberta can capitalize on the carbon emission reduction value of energy efficiency. In fact, a recent Navigant study found there is the yearly potential for 4.4 Mt CO_2e of greenhouse gas emission reductions and 8.9 Mt CO_2e in GHG emission reductions if programming is extended to the oil and gas sector.

Reducing the need for new utility infrastructure

Energy efficiency is the lowest cost energy resource available in Alberta. At 2.7 cents per kilowatt hour of saved energy, it is more cost effective than building new power generation. Additionally, experience in multiple jurisdictions across North America show that reducing

demands on the electricity infrastructure through energy efficiency and distributed generation projects like rooftop solar can provide lower cost alternatives to expanding and upgrading this system.

Increasing leverage of private capital

During Energy Efficiency Alberta's first two years of operations, building owners and managers completed 216,000 energy efficiency, methane reduction and distributed generation projects across Alberta, investing nearly $375 million of their own money in those projects.

Efficiency financing is an emerging mechanism for building owners and managers to fund implementation of energy efficiency, renewable energy and clean technology projects. Cost-effective energy efficiency projects create utility bill and operating cost savings. Loan repayment can be purposefully structured, so the repayment schedule matches the savings. This in turn, reduces the risk to the lender. Reducing risk reduces borrowing costs.

Driving economic development and reducing energy poverty

There is an ever-growing list of societal benefits that come from investment in energy efficiency. Leading this list are economic development and local jobs, as well as increased business competitiveness and investor confidence.

Energy efficiency, renewable energy and clean technology investments are made in facilities and buildings in the local community. Driving demand for these projects, supports the jobs that do the work. It also reduces utility and operating costs, improving the productivity of local business and industry, and savings money for participating consumers and nonprofits.

Technology and innovation have created solutions. Energy efficiency programs are generating demand for those solutions, broadening the market, and growing the industry.