Electricity Canada
Our energy future

360-degree customer view

An industry looking to empower the customer.

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About Electricity Canada

Founded in 1891, Electricity Canada (formerly known as the Canadian Electricity Association) is the national forum and voice of the evolving and innovative electricity business in Canada. The association supports, through its advocacy efforts, the regional, national, and international success of its members. Electricity Canada members generate, transmit, and distribute electrical energy to industrial, commercial, residential, and institutional customers across Canada. Members include integrated electric utilities, independent power producers, transmission and distribution companies, power marketers, manufacturers, and suppliers of materials, technology, and services.

About Customer Council

The Customer Council is the only national forum in Canada dedicated to customer solutions and experience in the electricity industry and collectively represents the interests of industrial, commercial, residential, and institutional customers.

About the Technology Committee

The Technology Committee is a consultative and information exchange forum that addresses information and technology management practices in the electricity industry. The Committee represents utilities interested in the areas of information technology and monitors and reports on existing and emerging technologies affecting the industry.

About the Data Strategy Group

The Data Strategy Group (DSG) provides a collaborative information exchange forum for data and analytics within the Canadian electricity industry. While reporting to Electricity Canada's Technology Committee, the working group aims to develop mutually beneficial initiatives in the areas of organizational structures, governance models, data analytics objectives, and value extraction that can be applied across the industry.

Acknowledgments

Electricity Canada recognizes the efforts of the Customer Council and Technology Committee coming together for a joint workshop in June of 2023, and the Data Strategy Working Group who have contributed their time, support and insights in the preparation of this report. We hope it provides the audience with the insights and necessary recommendations for developing a 360-degree customer view, a critical tool in today's digital age.

"Building a customer-centric culture will be key for the future. How do you build that across the organization?"

Introduction

June 22, 2023, Electricity Canada's Customer Council and Technology Committee met to discuss the customer and the 360-degree customer view within the industry.

The following document helps to improve the 360-degree view of the customer which entails collecting relevant data from multiple company touchpoints. Ideally, the solution should incorporate all touchpoints and be provided to managers in a marketing information system (MIS). Decision-makers can then review and act upon the insights that are derived from collected data. The understanding of information systems, and data models is critical to the success of the decision-making model. Developing a comprehensive view of the customer will give electricity providers an understanding of the relationship cycle the customer has with the company and its services preparing them for the future.

The 360-degree customer view is not a new concept, but an aspirational one. Many companies and industries have established what it means to have a 360-degree customer view, what it means to interact with the customer, to understand the customer's profitability and cost levels, and to have the customer develop an emotional bond with their company's brand and offerings.

This is the challenge for the electricity industry.

What is the 360-degree customer view?

The purpose of the 360-degree customer view is to enable the company and its staff to view the customer as a whole to provide quality customer experiences with the use of all the data available from all possible touchpoints that a customer uses to interact with a company.This could be anything from social interaction to communication, from usage to paying a bill, and more. Data is the foundation to understand the customer.

Companies in all industries use an array of tools and techniques to capture customer data enabling them to learn who and what the customer is, to predict what the customer will do, to understand the customer's wants and needs, and to meet and exceed their expectations.

Effectively enabling the organization to adapt a 360-degree customer view will provide the organization access to customer information more quickly, develop an understanding of their priorities and preferences, and provide added insight into their future needs.

"The 360-degree customer view is the first interaction to the last interaction."

Customer

Somewhere between federal mandates and regulatory requirements, you will find an industry customer. What that customer looks like to the company that manages their electricity services is dependent on the 360-degree view of the customer.

The customer wants to know they can trust their electricity company, therefore, developing an emotional connection to the company's brand will be critical. Customers want the same experience that they receive from companies such as Amazon and Netflix.

Today data is key to business, without it companies cannot grow or expand their offerings to foster and create a modern service package for the customer. Companies that own and utilize customer data, will maintain a competitive advantage over companies that do not.

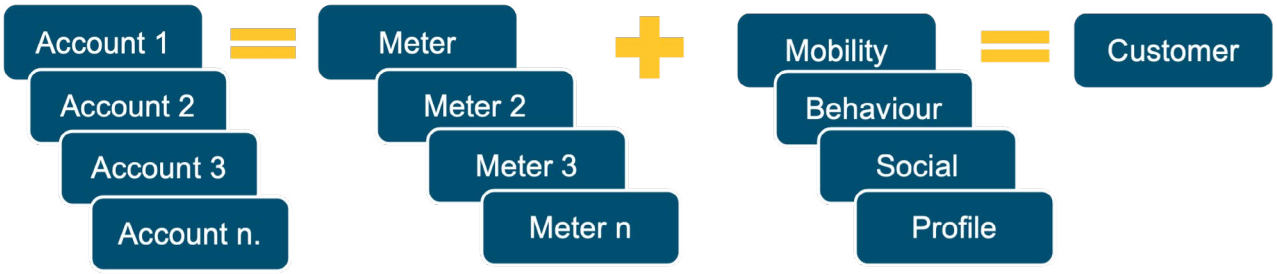
To understand the 360-degree view of the customer, companies must embrace a customer-centric approach within their operating models. They must explore and understand the total customer experience. This view of the customer will incorporate employees, as they deliver the total customer experience package from lineworkers, to customer support representatives. These interactions and relationships that occur will play a significant role in building a trusted future brand and customer loyalty.

It is of critical importance that utilities make the shift from the traditional view of the customer to a more robust view that seeks to incorporate both the location and power requirements (tangibles), as well as the psychology of the customer, online presence and potential future purchases.

Figure 1.0 Customer view

Traditional view of a customer

Progressive view of a customer



Use Case: Customer Size

For many companies, understanding the customer is to understand the contents of their bills. In some industries the true value of the customer comes from understanding the complete ownership portfolio of that customer.

Does the residential customer have multiple dwellings, does the business own multiple businesses within the community or province, that have the same service with the electricity provider or even multiple electricity providers?

Answering these questions will provide added insight into the complete provision of services that can be provided to the customer who deal with larger electricity demand portfolios.

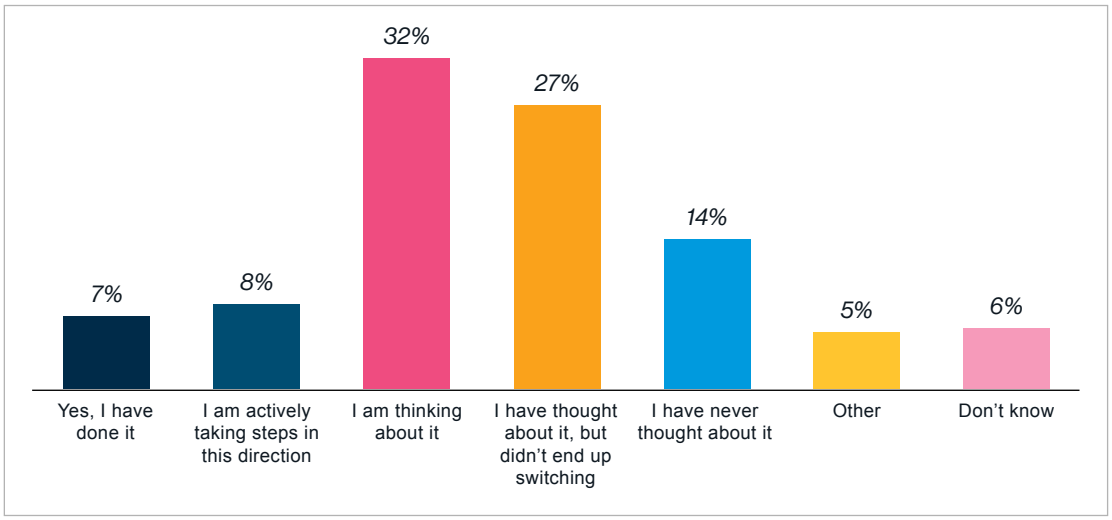
Customer priorities

Electricity Canada's national billing survey customers identified that the top three priorities for the electricity system in Canada should be the following.

Customers identified "Giving customers the tools and information to help manage their electricity usage" at a 21% priority level. Reducing electricity prices was the first priority for customers at 32%. . Highlighting that 1/3 of customers do not wish to have tools and information if it means increasing the cost of electricity.

In the same study, Electricity Canada identified that 15% of customers have taken the steps to change their source of energy to electricity or are on their way to doing so and another 32% are thinking about it. Electricity providers will need to develop a full understanding of customer behaviours to enable their transition and long-term support. This is the path to becoming the trusted energy advisor that customers need. Education will play a key role in enabling the customer of the future.

Figure 2.0 Electricity Canada National Billing Survey – Have you taken steps to change your energy source?



Creating personas

Before developing the 360-degree customer view, companies should develop customer personas. Understanding the profile of a variety of customers and how they may interact with your organization will be an important factor in developing empathy for the customer and fostering a customer-centric culture. Use cases with customer personas facilitate the development of the end solution.

Mobility

Customers can leave jurisdictions. Traditionally, this entails the end of the relationship with the utility, but not with the product. A customer who moves from one jurisdiction to another will be required to establish a new account with the new utility, there is little to no transfer of the relationship that was built with their previous electricity provider. Utilities can and should work together to develop similar platforms that can enable a simple transfer of the customers' 360-degree view of the customer from one electricity provider to another. Such an undertaking could prove beneficial for companies that reside in the same geographic region. A national system could also provide benefits.

Customer loyalty

In a monopoly, customer loyalty is often taken for granted. The customer has no choice, they must use the available service. However, the industry is changing, by installing batteries and solar panels customers can go off-grid. Customer loyalty is built through positive relationships by providing quality service and enhancing the customer's perceived value of the good or bad service. A 360-customer view will facilitate the customer experience. Developing a positive customer experience will impact customer loyalty. Customer loyalty is often demonstrated through return customers, reducing churn costs in many industries. Loyal customers may also seek other services and products from their trusted energy advisor, in this case, the electricity provider. Finally, loyal customers become brand ambassadors.

Customer segmentation

With customer data, the electricity provider can segment the market how they see fit based on their business model. Some companies segment based on type of dwelling, on education and age, or where customers are at in their life cycle. Now with social media and the ability to scan the internet, psychographic data is becoming more commonplace. Electricity providers may wish to segment their markets by psychographic data to gain insights into the customers of the future. Interest in electrification, batteries, solar panels, or electric vehicles can be collected from psychographic data and segmented accordingly. Many companies will segment their customers in more than one way to better serve the customer. Market segmentation will be a factor in developing the holistic view of the customer.

Role of the electricity company

With a federal government and societal move towards cleaner fuels, a need to reduce greenhouse gas emissions, and a push toward electrification, members of Electricity Canada find themselves in a unique position, not seen in many industries. Members must become the customers' trusted energy advisors, today and tomorrow.

Utilities that deal with industrial, institutional, commercial, and residential customers must adapt to modern digitization, and provide services and opportunities to their customer base so that they can be informed. Utilities must move beyond "table stakes" and provide personalization and customized energy offerings to the end customer.

Electricity companies in the customer supply chain must understand new technology and how it will impact both their operations and the end customer as well. Data, grid modernization, and artificial intelligence capabilities will provide companies with the capability to tackle the customers of the future.

Agility

Utilities will continue to add new services to their offerings to better manage their assets, service their customers, and meet regulatory and government requirements for the future. To deliver new products and services to a growing and more educated customer base, electricity companies will need to adapt agile project delivery methodologies and deliver iterative solutions to the customer.

Utilities are traditionally reactive. Advancing into a digital era with informed and progressive customers will put utilities in a position where they must change their way of thinking, become proactive in their solution offerings, and embrace the idea of becoming a one-stop shop for all customers as their trusted energy advisor.

Competitive mindset

Utilities in Canada generally function in a non-competitive market, however, the province of Alberta has re-billers in a unique Canadian market. Overall, in Canada, the competitive mindset is not a dominant trait in the industry. Many electricity companies across the country operate within a monopoly.

Canadian electricity providers will face growing competitive pressures from outside forces. Companies such as Amazon, Microsoft, and Google seek to offer facilities, renewable electricity and offer solutions to customers to better manage their energy consumption. The Nest thermostat is just one example. These companies hold more data and understanding of the industry's customers than the industry itself. If battery manufacturers are seeking to create the 1000km electric vehicle battery providing consumers with added options to go off-grid and self-generate, what does this mean to the electricity company? Does this open the door for car manufacturers to provide electricity solutions to the end customer without having to generate, transmit, and distribute any electricity themselves?

Operational empathy

Developing an emotional bond will require companies to operationalize customer empathy. Discussions surrounding the 360-degree view of the customer identified a need to build a bond with the customer. Companies can build that emotional bond by identifying, understanding, and responding to the emotional needs of the customer. It is critical that empathy is demonstrated at every touchpoint with every employee. Onboard customer orientation regardless of the employee and their function within the company, electricity providers should instill a customer-centric perspective in new employees. Hiring interviews can incorporate questions that gauge interviewee customer orientation, this simple act will instill the importance of the customer to the organization.

Compensation link

Companies can reinforce a customer-centric culture by embedding critical customer service indicators into the compensation program. By doing so, every employee in the organization will help ensure that the customer experience and journey meets and/or exceeds their expectations. Remaining a faceless corporation that sends their customers a monthly bill is no longer an option.

Customer trust

In this changing market, the electricity provider want customers to remain engaged in their offerings and become emotionally bonded to the organization. Customer trust will allow to build and grow services for the existing customer base by potentially building and growing new energy offerings to other customers. Being authentic through transparency and logic, while providing empathy will help secure the trust of the customer.

Shadow IT

Many companies have shadow IT within their various departments. Often these IT systems are built without the knowledge of the IT department to address specific departmental, or section needs. These systems eventually becoming operationalized or critical to the success of that same department or section. At times shadow IT is redundant or duplicated across the organization and results in increased costs.

Data

Data is the great enabler for the future and the backbone of the 360-degree customer view. Electricity companies have a great deal of data at their disposal, the question remains, what can be done to build a data model that suits the needs of both the customer and the electricity company?

The following is a data model developed from the conversation of the Customer Council and Technology Committee. Companies are free to develop the model fully or by section, the model is open to development based on the availability of data at the respective organization.

The Electricity Canada's Customer Council and Technology Committee identified that each company has many information systems but does not have the 'optimal' customer data model to truly understand the customer holistically. Companies have identified numerous sources of data, which raises the question, "how do you give customers an experience like Amazon and Google?" Personalization and customization are the stepping stones to a customer-centric future.

Data key takeaways:

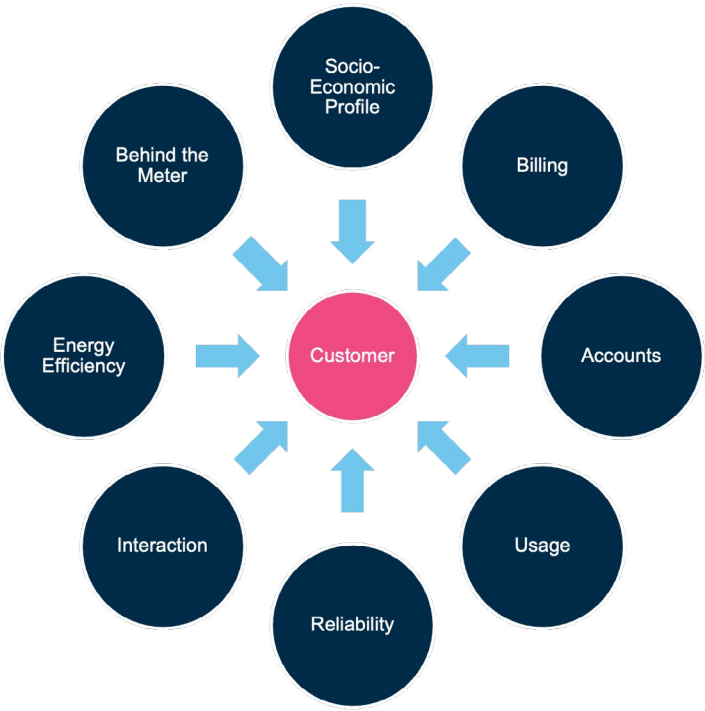
- All data must be made available in an easy-to-access model, where the customer is at the heart of it.
- There is a need to look at the customer and capture business processes and enhance the customer relationship management systems by implementing case management. From a case management approach, did the utility improve, what service levels were met, and are there any broader customer trends that can be identified to enhance the service offerings to the customer?
- The solution must be simple.
- The removal of data silos and implementation of data democratization practices is critical to the success of a 360-degree customer view.
- Shadow IT must be addressed.

Data will be the foundation for building the 360-degree customer view. It is no longer good enough for customer support representatives to know only the amount, electricity usage, and status of the bill. Customers expect full support a one-stop shop, with services that provide an elite customer experience or provide them the ability to personalize their interaction with the company.

Customer support representatives must have all information at their fingertips and the customer's historical view, their behaviours and more, to truly fully understand the customer and most importantly empathize with them. Figure 3.0 provides a theoretical view of the 360-degree customer view for the electricity industry.

As the industry develops and progresses deeper with digital capabilities, service attributes will need to be tailored for each customer segment for the data model to be successful in the company's engagement strategy.

Figure 3.0 360-degree customer view data model



The following table is a list of data elements that can feed into a 360-degree customer view. It should not be considered exhaustive.

Profile	Usage	Accounts	Billing
• includes segmentation • neighbourhood education • customer type • affordability characteristics income distribution • life stage • age • social media touchpoints • communication touchpoints • psychographic data	• kw/h • type of usage (appliances, EV, etc.) • time of usage	• Multiple accounts • commercial • residential industrial • charging station usage	• aggregated billing • single billing • e-billing • paper bills • Elder care • type of payment
Interaction	**Reliability**	**Behind the meter**	**Energy efficiency**
• type of complains • resolution time • satisfaction with resolution • number of complaints • customer rep contact	• number of outages • duration of outages, • 5-year average • Customers experiencing multiple outages • Customers experiencing long interrupted durations • tree maintenance requests • line-crew contact	• EV • battery storage • solar panels • in-house-solutions	• programs • home appliances

Data privacy

Today most organizations collect and utilize private or personal data from their employees, customers, business partners, and operations. With the increased use of private data, companies must ensure safe and ethical data use.

By adhering to ethical guidelines, companies can build trust. Building individual safeguards and contributing to more responsible and accountable use of personal data will demonstrate corporate accountability while building a solid brand and relationship as a trusted energy advisor. The ethical use of personal data is a legal and regulatory requirement but also should be a moral obligation for the industry.

Data privacy is top of mind in many jurisdictions. The federal and provincial governments all have privacy regulations and laws that companies must adhere to. Therefore, safeguarding customer data with modern cybersecurity practices is critical within the trust factor. Companies that provide personalized digital services to their customers must apply strict data governance methodologies and apply multifactor authentication to help safeguard customer data.

Utilities that deal with customers must explore opt-in options for providing data services that will be required to collect data. Generally, the practice is to opt out of data collection options, however, due to the increased demand for data privacy considerations, companies in many industries are providing customers with the ability to opt-in.

Providing an opt-in option will require clear and consistent communication to customers from all channels. Customer education will be a critical factor in obtaining data to build a 360-degree customer view.

The use of AI will become inevitable in the electricity industry as applications become piloted across departments. Privacy and safeguarding customer information for their benefit will be critical in future offerings, however, it will only be successful if the technology and processes that govern that technology are transparent and ethical.

Legal Issues

Data privacy is so critical that even agile companies such as OpenAI, the developer of ChatGPT, an online artificial intelligence tool, will need to be careful. On July14th, 2023 the United States Free Trade Commission, opened an inquiry into the use of private and personal data in the development of ChatGPT by OpenAI. The commission is examining where OpenAI "engaged in unfair or deceptive privacy or data security practices or engaged in unfair or deceptive practices relating to risks of harm to consumers."

In March of 2024, OpenAI's ChatGPT was found in violation of the European Union's General Data Protection Regulation, as identified by a regulatory body in Italy.

In addition, several U.S. based authors and artists are suing OpenAI as they are stating that ChatGPT used their work in its training data without consent. Several artists are also suing companies that produce AI image generators developer stating they are using their work in the AI driven images.

Benefits of a 360-degree customer view

Putting customers first will be the underlying step to building a customer-centric culture. Embedding customer centricity and empathy will be a challenge, but it is doable. When an organization achieves that level of customer understanding their brand will be enhanced and facilitate the emotional bond the customer seeks.

Key takeaways:

- Build a 360-degree customer view into your customer services strategy.
- Customer success relies on quality customer service experiences, it is important to capture all interactions the customer has with the company while ensuring you meet and exceed expectations.
- Understanding the customer needs, wants and goals for the electricity journey will allow you to provide quality services.
- Provide educational and informative content to keep your customers informed of the complexity of the industry. Treat them as the most important stakeholders.
- Personalizing service offerings demonstrates your understanding of the customers' wants and needs.
- Reinforce your brand success by showcasing positive customer engagement with all stakeholders.

"Customers are going to drive the future; technological change will lead to new customer experiences and that we cannot predict."

Roadmap to the 360-degree view

Technology readiness

Technology readiness will be important to enable the business to adopt the 360-degree customer view. Technology is the enabler to build an enhanced customer-centric culture. Digitization, cloud services, data governance, and artificial intelligence will be critical elements of success. However, they all must operate within a regulatory environment that seeks to maintain costs at minimal levels for customers. The return on investment for companies seeking the holy grail of customer models will play an imperative role in the final decision to develop and deliver a marketing information system. Deploying a solution will require a project methodology that is low-cost and delivers results that work for the company in question. Agile methodology and iterative solution design will play a factor in developing a 360-degree customer view that works for the electricity provider.

Data

Data is considered the enabler to building the 360-degree customer view to provide better decision-making and build improved operations. Data will provide actionable insights for the customer from reliability to affordability and more. Companies should offer customer dashboards to the consumer to provide an understanding of how they are using the services as well as staff who will be able to offer enhanced services and appropriate issue resolution. The data must be connected from across the organization. Building a democratized data fabric or data model of understanding will enable a customer-centric culture will gain the customer's emotional bond. Data governance and data quality will be foundational for a future 360-degree customer view data model.

Communications

Communication is a critical starting point for the customer. Many touchpoints are through communication channels. These channels will allow the company to educate and inform the customer. Utilities have a role in building trust in the industry through honest, empathetic communications. The communications department will be required to act on the model, however, to do so they will require an integrated communication plan with all departments.

Customer experience

The success of the 360-degree customer view will depend on customer satisfaction and their loyalty to the company brand. With increasing digitalization, personalization, and customization, electricity customers seek solutions that will inform them to become better electricity consumers. It will be the role of the electricity provider to further evolve. The electricity provider will need to find its place as an energy advisor for the consumer.

Customers will have access to their dashboard with personalized indicators and information sharing and communication channels. This service offering will enhance customer decision-making when it comes to electricity consumption. Responding to customer queries and service calls will play a factor in satisfaction, as the electricity provider must be seen as responsive and empathetic in dealing with the customer. The choice of opting-in to the solution and data collection should be given to the customer to ensure data privacy laws are met now and in the future.

Development of an analytics dashboard for staff to understand a particular customer or the entire customer base will need to be developed from the data model, staff will need to train with the proper toolset and improve their ability to better communicate with customers.

Concluding remarks

This paper contains several recommendations that an electricity provider could implement. Not all the recommendations within this document need to be implemented to enable a 360-degree customer view, as companies have varying degrees of resource availability, limited access to data, regulatory oversight, and varying levels of risk tolerance. These factors will play a factor in the implementation of a 360-degree customer view.

If enhancing the customer experience is important to the company, then developing a complete understanding of the customer should follow. Electricity providers should examine the feasibility of implementing a 360-degree customer view solution to enable customer understanding. From those goals, the company can then determine key performance indicators to better monitor their solution and the levels of success achieved with the 360-degree customer model.

Although the 360-degree customer view is enabled with technology and data, it is the soft skills that the electricity provider must enable within their organizational structure to deliver an effective and efficient solution. Embedding a strong customer-oriented culture is a life-long journey and electricity providers already have a good understanding of what it means to provide a service to a customer. Additionally, once the 360 platform and dashboarding capabilities are rolled out to both employees and customers, the service does not end there. Companies should encourage and challenge both employees and customers to improve the service capabilities of the customer's 360-degree view. The company will gain added insights and a continuous improvement model will build a long-term trusting relationship and truly emphasize the 360 capabilities.

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