1. Overview of Strategic Direction

1.1 INTRODUCTION
This 2016-2020 Strategic Direction provides an overview of Hydro Ottawa’s business strategy and financial projections for the next five years. It is designed to inform our shareholder and all other stakeholders about the most important trends shaping our business environment, and how the company intends to respond to them.

Like those that preceded it – issued in 2008 and 2012 respectively – this Strategic Direction sets out a balanced program for strong performance in our existing operations, coupled with sustainable and profitable business growth. Our strategy is customer-centric, financially responsible, and responds to a strategic environment that has changed in important ways since the publication of our last Strategic Direction document.

The objectives outlined in Hydro Ottawa’s 2012 Strategic Direction have largely been accomplished. Notably, the company has increased its renewable generation capacity several-fold during that period. From 22 megawatts at the beginning of 2012, our renewable generation capacity is now 79 megawatts (including joint ventures). The current expansion project at Chaudière Falls, scheduled for completion in 2017, and the purchase of Hydro Quebec’s generation assets at Chaudière Falls, which we expect to complete in the coming months, would bring this total to 128 megawatts – enough clean, renewable energy to power 107,000 homes. Hydro Ottawa has also made important progress on enhancing customer value, operational effectiveness, and our contribution to the community.

Powered by strategic growth and positive performance in existing operations, Hydro Ottawa has exceeded the financial projections set out in our 2012 Strategic Direction each year. The company has also exceeded the stretch target of an additional $10 million in net income over the five-year period, having achieved an additional $16 million in net income, above annual targets, over the first four years of the plan.

These accomplishments, combined with the changes that have occurred in our business environment, mean that it is time to set new goals and refresh our strategy.

1.2 STRATEGY
Our stakeholders will find much that is familiar in this 2016-2020 Strategic Direction. It refreshes, rather than replaces, the corporate strategy outlined in the 2012-2016 Strategic Direction.

Our core mission and mandate remain the same: we will continue to create value for our shareholder, our customers and our community through excellence in the delivery of electricity and related services.

Likewise, our four Key Areas of Focus – the critical areas of performance that guide our planning and operations – remain the same: we will continue to focus on Customer Value, Financial Strength, Organizational Effectiveness, and Corporate Citizenship, with Customer Value continuing to be the central driver of business strategy. These Areas of Focus have stood the test of time and have driven our success to date.

Moreover, our business lines remain unchanged: they will continue to be electricity distribution, renewable energy generation, and energy and utility services.

However, we are operating in a strategic context that has evolved significantly since our last Strategic Direction. And Hydro Ottawa is a different company in important ways than it was in 2012, including the scale of its renewable generation business. In view of these realities, we have outlined a new Vision in this Strategic Direction – to be a leading partner in a smart energy future.
This Vision is described in detail in Section 4 of this Strategic Direction. In essence, it recognizes that the electricity service model is in the midst of significant transformation – taking on a more decentralized, customer-centric, technologically advanced and environmentally sustainable form – and the role of local electrical utilities will be transformed along with it.

Our strategy for responding to this emerging landscape involves:

- Taking customer experience to the next level;
- Continuing to achieve strategic growth, including continued growth in our renewable energy business, evaluating opportunities to grow our electricity distribution business, and expanding the range of services we provide;
- Ensuring access to capital for growth;
- Making sure we have the right skill sets and organizational capacity to deliver on existing and new business lines;
- Continuing to enhance operational performance, including productivity and safety;
- Delivering on critical projects such as the Chaudière expansion project;
- Continuing to build public confidence and trust; and
- Being ready to embrace change and disruption in our industry.

Our aim is to be the trusted energy advisor for our customers – large and small – and our community. We believe Hydro Ottawa’s experience and core capabilities, and its position as a City-owned utility, make it uniquely suited to this role. As the energy needs and options of our customers and our community evolve, and as signature projects and developments proceed, Hydro Ottawa will play a leading role in helping our City to transition to a smart energy future.
We will also continue to grow shareholder value, maintaining a focus on strategic business growth within our core areas of strength. As noted above, Hydro Ottawa has significantly increased shareholder value through strategic growth over the past several years, particularly in our renewable generation business. As we continue to pursue this strategy, access to capital will be critically important. Among several approaches to meet this requirement, the company is seeking an amendment to its dividend policy. The amended policy would provide higher than historical dividends to our shareholder, while retaining some of the increased profits from growth within the company, to ensure we continue to enjoy access to capital on favourable terms and to safeguard our credit rating.

Taken as a whole, we believe this strategy for the company’s future presents a balanced program for solid performance, adaptation to a changing business environment, and sustainable and profitable business growth.

1.3 FOUR STRATEGIC OBJECTIVES

Hydro Ottawa’s success in the past has been achieved by focusing on four critical areas of performance – our four Key Areas of Focus. In each of these areas, we have set one overarching objective:

- **CUSTOMER VALUE:** We will deliver value across the entire customer experience;
- **FINANCIAL STRENGTH:** We will create sustainable growth in our business and our earnings;
- **ORGANIZATIONAL EFFECTIVENESS:** We will achieve performance excellence; and
- **CORPORATE CITIZENSHIP:** We will contribute to the well-being of the community.

These four areas of focus and strategic objectives will continue to guide our activities through the current plan. As in our previous Strategic Direction, the area of Customer Value takes on central importance.
Delivering essential services
2. Our Business

Hydro Ottawa Holding Inc., (Hydro Ottawa) is 100 percent owned by the City of Ottawa. It is a private company, registered under the Ontario Business Corporations Act, and overseen by an independent Board of Directors consisting of 11 members appointed by City Council. The core businesses of the Corporation are electricity distribution, renewable energy generation and related services. Hydro Ottawa owns and operates two subsidiary companies. In view of significant growth in the company’s renewable generation portfolio, it is expected that other operating companies will be created during the course of this Strategic Direction, allowing for the separation of the energy services and renewable generation business lines currently housed within Energy Ottawa Inc.

Hydro Ottawa Limited
Hydro Ottawa Limited is a regulated electricity distribution company operating in the City of Ottawa and the Village of Casselman. As the third-largest municipally owned electrical utility in Ontario, Hydro Ottawa Limited maintains one of the safest, most reliable and cost-effective electricity distribution systems in the province, and serves over 324,000 residential and commercial customers across a service area of 1,100 square kilometres. As a condition of its distribution licence, the company is required to meet conservation and demand management targets established by the Ontario Energy Board. The company’s customer base grows by an average of 1 percent per year.

Energy Ottawa Inc.
Energy Ottawa is the largest municipally owned producer of green power in Ontario, and a provider of commercial energy management services. It owns and operates six run-of-the-river hydroelectric generation plants at Chaudière Falls in Ottawa’s core, and 10 additional run-of-the-river facilities in Ontario and upper New York State. Energy Ottawa also holds interests in two landfill gas-to-energy joint ventures that convert millions of tonnes of previously flared-off methane gas into renewable energy at the Trail Road landfill site in Ottawa and the Laflèche landfill site in Moose Creek, Ontario. In total, this represents a generation capacity of more than 79 megawatts annually, which is enough to power 62,000 homes. A multi-year project to expand Energy Ottawa’s Ontario generation facilities at Chaudière Falls is under way, with completion scheduled for 2017, and a transaction for the purchase of Hydro Quebec’s generating assets at Chaudière Falls is expected to close in the coming months. When both of these initiatives are complete, the company will have over 128 megawatts of installed green generation capacity.
Understanding the changing business environment
3. Strategic Context

3.1 BUSINESS ENVIRONMENT
If the words “electric utility” evoke a familiar image, it is because the basic business model of electricity service has not changed very much in the past 125 years. But that model is now in the midst of a significant shift – one that will ultimately make customers the most important players in the electricity market. This emerging reality of customer centrality is the most important driver of Hydro Ottawa’s business strategy for the next five years and beyond.

The prototype for today’s electricity system emerged in the wake of the “current wars” of the 1880s and ’90s. Nikola Tesla’s patents for alternating current technology (AC), backed by the industrial resources of George Westinghouse, allowed the cost-effective transmission of high voltage electricity over long distances starting in the 1880s. The resulting economies of scale proved too much for Thomas Edison’s direct current (DC) technology to compete with, since Edison’s system relied on small scale generation happening close to the consumer. When Edison’s company joined with a major competitor to form General Electric in 1892, and embraced AC technology, the paradigm was set: large scale generation, high-voltage transmission over long distances, and then delivery to homes and businesses through local distribution networks, like the one operated by Hydro Ottawa. Power flowed in a single direction, without much involvement or control from the end user.

This model has served us well, but today, it is incapable of doing everything we need it to do. Transformation is well under way. It involves significant improvements to the centralized system of electricity supply, along with developments that would undoubtedly make Edison smile: increases in distributed generation, storage, and user control. If Edison and Westinghouse were alive today, they might well be business partners instead of arch rivals.

3.1.1 THE MAIN DRIVERS OF TRANSFORMATION
There are several reasons for the changes under way. The main drivers are cost, technology, and public policy and regulation relating to energy and related matters.

These three drivers of change are combining in ways that position customers to be much more active participants in the power system and the power market. Indeed, electricity consumers are poised to become the most influential actors in a new energy landscape – a dramatic break from the passive role consumers have traditionally played in electricity markets. This transformation to a more customer-driven and customer-centric model of electricity will present opportunities for energy providers that are able to innovate, and challenges for those that fail to adapt.

In terms of cost, the very scale of the centralized system makes it expensive to maintain. Electrical equipment is due for replacement at an unprecedented scale across Ontario and beyond, requiring massive and sustained capital investments. For Ontario local distribution networks alone, the Conference Board of Canada estimated that $21 billion would need to be invested between 2011 and 2030 to replace and refurbish aging infrastructure and facilitate smart grid developments, not to mention a further $60 billion for generation and $5.5 billion for transmission.

These cost factors, plus environmental concerns, have led to a greater focus on energy efficiency and conservation – for consumers, utilities, system operators, and policy makers. Indeed, Ontario has adopted a “Conservation First” approach to energy policy and planning, on the
premise that the cheapest kilowatt is the one that never has to be generated in the first place. According to Ontario’s Long-Term Energy Plan (2013), conservation accounted for approximately 5 percent of Ontario’s “energy supply” in 2013 (meaning 5 percent less generation was required), and this is projected to grow to 16% by 2032.

This focus on conservation, along with dramatic improvements in the efficiency of appliances such as TVs and refrigerators and the decline in mass production manufacturing across North America, means that electricity consumption has remained static. In Ottawa, average household consumption declined by about 7.5 percent between 2010 and 2014. As a result, despite continued growth in the number of connected customers, the volume of electricity delivered through Hydro Ottawa’s distribution system dropped by 2.2 percent. This poses a challenge to the traditional utility business model based on a rate per kilowatt consumed by the customer.

At the same time, innovation is steadily reducing the cost of localized, or “distributed” generation (mainly renewables like solar and wind) and energy storage, such that they are expected to eventually be price competitive with centralized generation. Indeed, depending on the technology and the jurisdiction involved, this situation of “grid parity” may not be far off. The growing maturity and affordability of distributed energy technologies such as solar generation, storage, and geo-thermal heating is expected to reshape the energy supply landscape. Customers will increasingly produce a portion of the energy they need on site, or become sellers of energy as well as consumers.

A similar trend can be seen with electric vehicles (EVs), where innovation is steadily bringing down costs. While market penetration is currently low, consumer interest is very high, and EV sales are likely to grow exponentially as costs decline.

Coinciding with these technological advances is the policy imperative of reducing carbon emissions in response to the threat of climate change. This reinforces interest in renewables both at the micro scale and the utility scale, and the electrification of transportation through EVs. Investors are responding at an unprecedented level. Globally in 2015, they invested $285.9 billion in renewable generation (excluding large hydro-electric dams) – more than double the amount invested in new coal or gas generation.

Another technological trend transforming the utility paradigm is the emergence of the Smart Grid through the convergence of information technology with grid technologies. The ability to see what is happening in the grid, apply sophisticated data analytics, and respond remotely without sending utility trucks has already reshaped utility control rooms. Next, the sharing of grid information and control with customers, and the ability to use data and analytics to provide personalized service, will transform the consumer’s relationship with the power system.

The role of information technology in transforming the utility landscape cannot be overstated. It has transformed customer service approaches across many industries, and the electricity sector will be no exception. The opportunities for customized service and consumer control are growing daily, as are customer expectations for choice, convenience and responsiveness, informed by their experience with other industries. The ability to access information and complete transactions “anywhere, anytime” through mobile technology is increasingly a baseline expectation.

Equally important, it is not just customers who are connected everywhere and all the time; increasingly, so are their homes, appliances, equipment and vehicles through the emerging internet of things. While utilities will continue to manage the grid, Smart Grid technologies and the internet of things will “connect the customer to the control room”, giving them a much bigger role. The consumer’s home, office, store, farm, or factory is becoming an integral part of the power system, and their laptops or mobile devices are becoming interconnected with the system control room.
The internet of things has broad implications for the electricity industry. It is likely to result in significant product innovation, game-changing partnerships, and converging markets, as both new and existing market participants seek to enable customers to harness its potential for efficiency, revenue generation, convenience, control and environmental performance. In essence, it creates a new “digital ecosystem” for energy to which utilities will have to adapt. It opens the door for energy market participants that exist purely in the digital space – a scenario that has led to creative disruption in many other industries, from movie rentals to transportation to hotel accommodation and many more. In the electricity industry, it is likely that the market for “behind the meter” products and services will increase as a proportion of the total energy dollar.

At Hydro Ottawa, we’ve been preparing for these changes for a number of years. Our two previous multi-year Strategic Direction documents both placed significant emphasis on modernization and preparation for change, from a technological, customer service, and business model perspective. This Strategic Direction is squarely in the same vein, building upon those that preceded it to embrace change in our industry. We believe local electrical utilities will be more relevant than ever in this new landscape, but their role will change, along with those of every other player in the system – consumers, system operators, generators, transmission utilities, and regulators included.
The opportunities for customized service and consumer control are growing daily, as are customer expectations for choice, convenience and responsiveness....
These changes are likely to be driven at the consumer level. Customers who have options for localized generation and storage, and ready access to smart home technology, are unlikely to be content to be passive consumers. Customer choice, convenience and control are not only possible, but increasingly expected. Some will want to be sellers of energy, not just buyers – what are sometimes called “prosumers” (producers and consumers). Or to “sell” a reduction in their consumption at times of peak demand, referred to as “demand response” (or the sale of “negawatts”). Technology makes this relevant not just to large and sophisticated commercial and industrial facilities – the traditional audience – but increasingly to average homes and businesses, because they can participate without even thinking about it. Working through intermediaries called “aggregators”, they can take a “set and forget” approach, selling “negawatts” when the price is right, since aggregator systems can communicate directly with their appliances and heating and cooling systems. In the same way that smart phones have transformed business models in other industries, smart homes (and smart commercial, industrial and institutional facilities) are likely to transform the energy industry.

The pace of this change may vary from one customer segment to another. Large businesses and institutions are likely to be – and in some cases already are – early adopters of distributed generation, demand response and energy management because the potential benefits are substantial and the related investments are not prohibitive. Farms and warehouses may be equally interested. The residential segment may be slower to adopt, particularly where the upfront costs are high. However, it seems likely that smart energy design – including distributed generation, micro-grids, EV infrastructure and energy efficiency – will increasingly be a focus for new subdivisions and high-rise developments, particularly if government standards emerge that encourage or require this.

### 3.1.2 THE OPPORTUNITIES RESULTING FROM TRANSFORMATION

The impacts of the changes described above depend on where one is located in the energy ecosystem. Of all electricity sector participants, local distribution companies are closest to the customer, and will be directly affected by the shift to customer centrality. They will see new opportunities, as well as a need for transformation in the way they do business.

A key enabler for many of developments described in the preceding section – from demand response markets to the integration of more distributed generation and widespread use of EV’s – will be a reliable – and smart – local electricity distribution network. One that allows power to flow in both directions, and responds effectively to fluctuations in supply and demand, coupled with sophisticated back office functionality capable of handling complex transactions.

More broadly, there are opportunities to leverage the modernization of electricity infrastructure and services to create not just a Smart Grid, but smart communities and a smart city. Landmark developments and municipal projects proposed or under way in Ottawa – such as light rail transit, the redevelopment of Lebreton Flats, and the transformation of the Chaudière Falls district – will change the face of the nation’s Capital in important ways. If properly leveraged through collaboration, these signature projects can have an even more transformative impact. Hydro Ottawa – as a municipally-owned and community-minded company – will seek opportunities to collaborate on innovative energy solutions for our community, becoming a leading partner in a smart energy future.

The shift toward renewable energy driven by improving technology and concerns over climate change also presents an opportunity for utilities with expertise in this area. According to Bloomberg New Energy Finance, global clean energy investment has grown almost six-fold since 2004, and reached record levels in 2015.
The UN Environment Programme reports that renewable energy (excluding large hydro) made up the majority of gigawatts of new generating capacity installed in 2015 for the first time ever, at 53.6%. These trends are evident in Ontario, where renewable energy is expected to grow as a proportion of Ontario’s energy mix, from 31 percent of installed capacity in 2013 to 46 percent in 2025 (including large hydro), and from 44 terawatt hours of production to 68 terawatt hours by 2025.

Hydroelectricity, which represents the bulk of Hydro Ottawa’s renewable energy production, plays an important role in Ontario’s Long Term Energy Plan (2013). More than half of Ontario’s current renewable energy supply, and over 20 percent of the province’s electricity supply overall, comes from hydroelectric facilities. Generation from this source is expected to grow to 42.2 terawatt hours by 2025 – a 19 percent increase over 2013 levels.

In addition to the indispensable role of local distribution utilities in providing the Smart Grid, and the opportunities associated with utility-scale renewables, there will also be new opportunities for utilities that are able to anticipate and meet the changing needs and expectations of customers for energy-related services. As the range of customer options for energy expands, so will the market for services that help them to generate, sell, store, manage and conserve energy, and reduce their costs and greenhouse gas emissions.

The customer proximity, assets and expertise of local distribution utilities mean they are uniquely well-placed to transform the last mile of the 125-year-old model, serving as the interface between customers and the new energy system, and proactively seeking opportunities to accelerate the adoption of smart energy technologies. Many customers see their local utilities as the preferred partner in value-added energy services. This “trust advantage” presents opportunities for an expanding range...
of services, and makes utilities an ideal strategic partner for other market participants who offer innovative energy solutions, but enjoy lower brand recognition and consumer trust. Consumer interest in small-scale renewables and energy storage is strong and growing, and utilities are well-placed to offer these options to their customers through new service offerings. Given the opportunity to work with a trusted partner such as their local utility, many more homes and businesses may choose to become producers of energy as well as consumers. EV infrastructure is another emerging customer need that utilities are well-positioned to meet.

3.1.3 KNOWING THE CUSTOMER AND RESPONDING TO THEIR NEEDS
Customer centrality represents the single most important change in the fundamentals of the utilities business. It has been the key driver of Hydro Ottawa’s business strategy over the past several years, and will continue to be our focus over the next five years. The customer value we provide “up to and beyond the meter” will drive our financial strength and business growth, our operational efficiency and effectiveness, and our contributions to the well-being of our community.

As the customer’s place within the electricity system evolves, successful utilities will be those that recognize that customers are not all the same, and adapt and tailor their service delivery to the specific needs of individual customers, leveraging technology to enhance the customer experience and increase operational agility. The tools exist for utilities to understand and engage their customers at an individual level, and provide truly personalized service. Leveraging the power of big data, the capabilities of the Smart Grid and the convenience of mobile technology, utilities can anticipate and meet customer needs with increasing precision, offer service “anytime, anywhere”, and create a more effortless customer experience. A willingness to invest in the skills, culture, technology and practices needed to leverage those tools will be a key difference between leading and trailing utilities in a more customer-centric landscape.
3.2 POLICY AND REGULATORY ENVIRONMENT

Policy and regulatory responses to a range of issues can have a significant impact on our business environment. Containing rising electricity rates while facilitating much-needed infrastructure and technology investments is a key challenge facing regulators and policy makers, as is the need to limit and respond to climate change.

3.2.1 CONSOLIDATION

One response to electricity cost concerns has been to encourage utility consolidation to achieve economies of scale. In 1996, there were 307 municipal electrical utilities (MEUs) serving Ontario customers. Today there are 73. Hydro Ottawa itself resulted from the amalgamation of five MEUs at the time of the City’s amalgamation. This number will continue to drop, as mergers and acquisitions within the sector continue to be pursued. Consolidation has been a policy recommendation of many panels and commissions, including the Advisory Committee on Competition in Ontario’s Electricity System in 1996 (the “Macdonald Committee”), the Ontario Distribution Sector Review Panel in 2012 (the “Elston Panel”), the Commission on the Reform of Ontario’s Public Services, also in 2012 (the “Drummond Report”), and the Premier’s Advisory Council on Government Assets that reported in 2015 (the “Ed Clark Report”).

Three recent developments make the issue of consolidation particularly relevant at the present time. First, three MEUs in the Greater Toronto Area and Hamilton have proposed to merge (Enersource Corporation, PowerStream Inc. and Horizon Utilities Corporation) and to acquire Hydro One Brampton Inc. from the province of Ontario. This merger – which must still secure regulatory approval – would create Ontario’s largest MEU, serving nearly a million customers. Second, the province recently divested 15 percent of its interest in Hydro One through an initial public offering (IPO), and has plans for up to three more share offerings, divesting up to 60 percent of its interest in total. In parallel with this IPO, Hydro One has pursued acquisitions of certain MEUs, and further expansion efforts can likely be expected. Third, in order to encourage consolidation, the province has exempted utilities from paying capital gains tax on utility dispositions from January 1, 2016 to December 31, 2018, and provided partial relief from the electricity transfer tax that applies to sales of utility assets to the private sector. These developments will likely increase the momentum toward consolidation in the sector, and more mergers and acquisitions can likely be expected. For example, three MEUs operating east and north of Toronto – Veridian Corporation, Oshawa Power and Utilities Corporation and Whitby Hydro Energy Corporation – recently announced that they have signed a memorandum of understanding to explore the benefits and feasibility of a merger.

Hydro Ottawa’s main focus with respect to consolidation has been the acquisition of Hydro One customers within the City of Ottawa, to complete the consolidation of electricity services that was left incomplete at the time of municipal amalgamation. However, within the current regulatory framework, a commercially viable transaction to acquire these customers has not been possible, and discussions with Hydro One were discontinued in 2015. Consolidation with other Eastern Ontario utilities outside of Ottawa could also potentially benefit customers and our shareholder, and Hydro Ottawa remains open to considering such opportunities.

Fiscal pressures faced by the Province of Ontario have also prompted a rationalization of the regulatory framework, including a reduction in the number of regulatory agencies, in particular through the merger of the Ontario Power Authority with the Independent Electricity System Operator (IESO).
3.2.2 PERMITTED BUSINESS ACTIVITIES
There has also been a growing recognition that meeting the above policy objectives, and responding to changing customer needs and expectations, will require utilities to adopt new business models. It is no longer realistic to regard distribution, generation and energy management as distinct and isolated activities and barriers to utility collaboration across service territories may prevent efficiencies that could be achieved through means other than mergers or acquisitions. To that end, amendments to the Ontario Energy Board Act that were adopted in 2015 (through Bill 112) have removed certain restrictions on the business activities of local distribution company affiliates, and relaxed restrictions on the activities of distributors themselves. This will afford opportunities to achieve efficiencies, develop new revenue streams, and provide seamless energy-related offerings to customers.

In view of these developments, it seems likely that utility revenues will in future be made up of a greater mix of regulated distribution service charges and new revenue streams that result from leveraging the utility’s core competencies to provide value-added services. The customers for these services may be within or outside of the distributor’s traditional service territory, and in some cases may be other utilities. The continued push to transition to renewable energy sources also represents a continued revenue opportunity for utilities that have a core strength in this area, such as Hydro Ottawa.

3.2.3 RATE STRUCTURES
In parallel, the Ontario Energy Board has directed electricity distributors, including Hydro Ottawa, to transition to a fixed-charge approach to distribution service charges over the next four years. This reflects the centrality of the local distribution system to energy modernization,

Given the opportunity to work with a trusted partner such as their local utility, many more homes and businesses may choose to become producers of energy as well as consumers.
and is aimed at providing adequate resources to maintain it regardless of consumption levels. At the same time, revenue growth from distribution charges is expected to be modest due to an emphasis on cost control at the policy, regulatory, and utility levels.

### 3.2.4 CLIMATE CHANGE

Beyond economic and cost considerations, the policy and regulatory landscape for electricity is and will continue to be profoundly shaped by the policy objective of reducing greenhouse gas emissions (GHGs) to limit climate change. Ontario has announced that it will implement a cap-and-trade program to reduce GHGs to 15 per cent below 1990 levels by 2020 and 80 per cent below 1990 levels by 2050. The federal government has strongly signalled that a national initiative to put a price on carbon will be forthcoming, though the shape of that program and its relationship to provincial initiatives remains to be seen.

Electricity can be a very low-carbon energy source, and is therefore well-placed to be part of the solution, but improved efficiency and changes in supply mix will undoubtedly be required. This means the policy focus on renewable energy, energy conservation and demand response can be expected to continue and intensify. In addition, utilities can expect increasing demands to reduce the carbon intensity of their own operations. The same will be true of other businesses and institutions, which could increase demand for energy services that Hydro Ottawa is well-placed to provide.

### 3.2.5 RENEWABLE ENERGY

Ontario’s approach to the procurement of renewable energy continues to evolve. In general, it has become more competitive. Micro-scale renewable projects (10 kilowatts and under) continue to be accepted for premium pricing under the micro-FIT program (or micro-Feed-in-Tariff), up to an annual cap, which in 2015 was 50 megawatts. Projects of between 10 and 500 kilowatts can bid into the FIT program (FIT 4) during defined application periods. In 2015, the program accepted applications for three weeks in October, and received applications representing 2.4 times the capacity to be awarded. Prices offered under these programs (FIT 4 and micro-FIT) are reviewed annually. It is possible that they could evolve from premium-price procurement programs into a net metering program (with power being used by the home or business and only the excess being sold into the grid) as the cost of small-scale renewables continues to decline. Power-purchase agreements for larger-scale renewables (more than 500 kilowatts) are awarded through the Large Renewable Procurement (LRP) program, which involves highly competitive procurement rounds conducted by the IESO. In some cases, the Minister of Energy has also directed the IESO to enter into negotiations for a power purchase agreement relating to a specific facility in order to achieve energy policy objectives.
3.2.6 CONSERVATION AND DEMAND RESPONSE

Provincial energy policy continues to emphasize conservation under a “Conservation First” approach to energy planning. Under this framework, the province is committed to investing in conservation first, before new generation, where this is a cost-effective solution.

Conservation is aimed at reducing the volume of electricity consumed over a period of time (for example, a month or a year). Demand reduction, also called demand response, is a complementary effort aimed at reducing the quantity of energy required at any one point in time – specifically, at times of peak demand. Time-of-use rates present one means of achieving this; another is to pay customers to reduce consumption when demand is highest. The IESO recently completed its first demand response (DR) auction – a mechanism to pay for demand reduction (“negawatts”) rather than purchasing additional power (“megawatts”) at times of peak demand – and has stated that it will eventually shift the procurement of DR resources from contracts to a market-based mechanism that is more flexible and cost-effective for ratepayers. For now, auctions will occur on an annual basis, but in the future DR resources may bid into the spot market alongside generators and imports.
Demand response is currently projected to account for 5 percent (or 2,242 megawatts) of Ontario’s electricity supply capability by 2025, but recent developments in the United States suggest demand response may come more quickly, and on a larger scale, than many have anticipated. The Federal Energy Regulatory Commission (FERC) issued Order 745 instructing market operators in the US (similar to Ontario’s IESO) to allow demand response (“negawatts”) to bid into the electricity market on the same terms as generation (“megawatts”). This Order was originally quashed by a court on the grounds that FERC did not have jurisdiction to issue it, but that decision has recently been overturned by the US Supreme Court. It is expected that this decision will result in a significant growth in the demand response market in the US. Navigant Research projects that the global market for demand response will grow from just 31 gigawatts in 2014 to about 197 gigawatts by 2023 – an increase of more than 500 percent – with revenues growing from $1.6 billion to $9.7 billion. Given the highly integrated nature of North American power markets, and the stated interest of the IESO in this type of approach, it seems likely that a dramatic upscaling of demand response in the US would eventually translate into greater adoption in Ontario as well. While DR has not been a significant factor in Ottawa to date, due to the absence of a large industrial base, it could become more relevant when and if a significant market develops for aggregated residential and commercial demand response.

3.2.7 CYBER SECURITY
There is broad recognition among governments, regulators and utilities that critical infrastructure such as electricity distribution grids could become the target of cyber security threats, including intentional targeting by terrorists, organized crime and foreign entities. The consequences of such targeting could be severe. The federal government, working with partners from a range of sectors, developed a National Strategy for Critical Infrastructure and a corresponding Action Plan for Critical Infrastructure. The Action Plan has been

Provincial energy policy continues to emphasize conservation under a “Conservation First” approach to energy planning.
refreshed for the 2014-2017 period, and provides a framework for a coordinated response among federal, provincial, territorial and critical infrastructure sector partners to strengthen critical infrastructure resilience. The new Minister of Public Safety and Emergency Preparedness has been mandated to conduct a review of existing measures to protect Canadians and our critical infrastructure from cyber-threats. Hydro Ottawa and other electric utilities collaborate on cyber security issues, including information sharing and input into federal and other policy initiatives, through the Canadian Electricity Association’s Security and Infrastructure Protection Committee (SIP). SIP has regular discussions with federal security and intelligence agencies. Within the electricity industry, there is also coordination and mandatory reporting of cyber security information through the North American Electric Reliability Corporation (NERC). The IESO operates a Cyber Security Forum to facilitate collaboration within the Ontario industry.

3.2.8 CONCLUSION
These areas of policy and regulation are evolving. The speed of this change and direction it takes will have a significant impact on Hydro Ottawa’s business strategy and success. The organization is well positioned to provide services to other utilities, to develop new revenue streams based on value-added services, to continue to grow its renewable generation business, and to pursue mergers and acquisitions. As described below, our vision is to be a leading partner in a smart energy future, and the company is well-placed to embrace that role.
Ensuring a more sustainable energy future
4. Strategic Direction

4.1 OUR MISSION
To create long-term value for our shareholder, benefitting our customers and the communities we serve.

Hydro Ottawa is both a community asset and an investment for our shareholder, the City of Ottawa. As a community asset, our purpose is to provide efficient and reliable services and a first class customer experience to our customers, and to continue to be a strong strategic partner with the City, helping to deliver on its economic development and environmental agendas. As an investment, our purpose is to provide stable, reliable and growing returns, and to increase shareholder value both in the short- and long-term.

4.2 OUR GUIDING PRINCIPLES
Hydro Ottawa is committed to creating long-term value in a manner that will withstand the test of public scrutiny and inspire confidence and trust. To that end, we strive to achieve excellent operating and financial results while abiding by professional standards of conduct. We are guided not only by legal obligations, but also by best governance and business practices, and standards established by independent agencies. These expectations provide the foundation for our commitment to all of our stakeholders, and are reflected in our organizational values, our Code of Business Conduct, and our operating policies and procedures.

4.2.1 OUR ORGANIZATIONAL VALUES
At Hydro Ottawa we are committed to an organizational environment that fosters and demonstrates ethical business conduct at all levels and reflects our shared values of teamwork, integrity, excellence and service. Every employee must lead by example in this endeavour.

4.2.2 OUR COMMITMENTS TO OUR STAKEHOLDERS
Hydro Ottawa takes into account the interests of all our stakeholders including employees, customers, suppliers, our shareholder and the communities and environment in which we operate.

Employees
The quality of our workforce is our strength and we will strive to hire and retain the best-qualified people available and maximize their opportunities for success. We are committed to maintaining a safe, secure and healthy work environment enriched by diversity and characterized by open communication, trust, and fair treatment.

Customers
Our continued success depends on the quality of our customer interactions, and we are committed to delivering value across the entire customer experience. We are honest and fair in our relationships with our customers, and provide reliable, responsive and innovative products and services in compliance with legislated rights and standards for access, safety, health and environmental protection.
Suppliers and Contractors
We are honest and fair in our relationships with our suppliers and contractors and purchase equipment, supplies and services on the basis of merit, with a preference for local procurement. We pay suppliers and contractors in accordance with agreed terms, encourage them to adopt responsible business practices, and require them to adhere to our health, safety and environment standards when working for Hydro Ottawa.

Community and the Environment
We are committed to being a responsible corporate citizen and will contribute to making the communities in which we operate better places to live and do business. We are sensitive to the community’s needs, and dedicated to protecting and preserving the environment where we operate.

Shareholder and Other Suppliers of Finance
We are financially accountable to our shareholder and to the institutions that underwrite our operations, and communicate to them all matters material to our organization. We protect our shareholder’s investment, and manage risks effectively. We communicate to our shareholder all matters that are material to an understanding of our corporate governance.

Hydro Ottawa takes into account the interests of all our stakeholders including employees, customers, suppliers, our shareholder and the communities and environment in which we operate.
4.3 OUR VISION AND STRATEGY

4.3.1 OUR VISION
Hydro Ottawa – a leading partner in a smart energy future.

Leading...
For Hydro Ottawa, leading means consistently being among the top performers in the business, in every critical area of our operations; and being regarded as a credible and trusted voice in our industry, helping to shape policy, regulatory and operational responses to the critical issues of the day.

Leading means not merely reacting effectively to the transforming utility landscape, but proactively seeking opportunities to accelerate the adoption of smart energy solutions. We want our customers and our community to have the benefits this can provide, and we think local utilities have a critical role to play in making these solutions a reality.

To ensure we’re leading, we will continue to recruit and fully leverage the talents of great people; listen to innovators and stakeholders in our community, partner with educational institutions, and work closely with other leading companies to keep abreast of new developments and help drive innovation.

Partner...
Utilities such as Hydro Ottawa will play a critical role in building a smart energy future; but we’re not the only essential players. Indeed, as noted earlier, the fundamental change under way in the electricity sector is that customers are becoming the most important players in the electricity market. The transition to a smart energy future will be driven by consumers’ needs, preferences, and objectives.

At the same time, with their local utility as a proactive and innovative partner, customers and communities can reach these goals faster, more efficiently, and to a much greater extent. The customer is at the centre of our business, and our aim is to be their trusted advisor and energy partner.

As a City of Ottawa-owned company, we are equally committed to the well-being of our community. We will continue to be a strong partner with our shareholder, helping to deliver on its energy, economic development, and environmental agendas, and will look for ways to enhance that partnership even further.

Partnership means working together, in ways that may be familiar or new. Hydro Ottawa is committed to working collaboratively to find smart solutions to evolving energy needs.
That means re-examining our work methods, being flexible, entrepreneurial, and open to new possibilities, and developing innovative products and services.

This may mean partnering on new types of projects – microgrids, smart communities, district energy, and more. Where the business case is viable, Hydro Ottawa will embrace new approaches. It may also mean collaborating with new, unconventional and even disruptive players in the energy landscape. For example, as smart home technology and the internet of things start to take shape, the world’s biggest technology companies are being attracted to the energy domain. This may present opportunities for partnerships that will enhance the customer experience.

...in a Smart Energy Future
There are lots of descriptions of what “smart energy” looks like. What we mean when we use the term is an energy system that makes effective use of available technologies to maximize consumer, community and environmental benefit. By definition, then, it is sustainable, customer-centric, reliable, cost-effective, secure, and constantly evolving. It is responsive to evolving needs and opportunities, and focused on tangible benefit.

This provides a standard for assessing progress toward our vision: how sustainable, customer-centric, reliable, cost-effective, secure, and responsive is the energy system we are helping to create? But there is also an intuitive element to the concept of “smart energy”, and the whole is greater than the sum of its parts. Like a smart phone or a smart home, we know smart energy when we see it, and we know it will look different tomorrow than it does today, as technology and consumer needs evolve. Smart energy is also a foundational component of a smart city, and Hydro Ottawa will welcome opportunities to collaborate in the pursuit of that objective.

By developing a smarter electricity grid that improves efficiency, customer control and reliability, by generating more clean and renewable electricity, and by partnering with our customers, our community, and other utilities on innovative energy solutions, we will be contributing to a smart energy future. If we do this to a standard of excellence, Hydro Ottawa will be a leading partner in that future, which is exactly what we aim to achieve.
4.3.2 OUR STRATEGY

The essence of Hydro Ottawa’s strategy is to put the customer at the centre of everything we do. Reorienting our business around the customer was the primary goal of our previous Strategic Direction, and customer centrality continues to drive our business strategy. We believe that a sharp focus on the value we provide to our customers will generate positive results in all areas of performance – our financial strength and business growth, our operational efficiency and effectiveness, and our contributions to the well-being of our community.

As described earlier, the electricity service model is in the midst of significant transformation – taking on a more decentralized, customer-centric, technologically advanced and environmentally sustainable form. The transition to a more customer-driven and customer-centric model of electricity will present opportunities for energy providers that are able to innovate, and challenges for those that fail to adapt. Our strategy for responding to this emerging landscape involves:

- Taking customer experience to the next level;
- Continuing to achieve strategic growth;
- Ensuring access to capital for growth;
- Making sure we have the right skill sets and organizational capacity to deliver on existing and new business lines;
- Continuing to enhance operational performance, including productivity and safety;
- Delivering on critical projects such as the Chaudière expansion project;
- Continuing to build public confidence and trust; and
- Being ready to embrace change and disruption in our industry.

To ensure we have the scale, financial capacity, and culture of innovation necessary to respond to evolving customer needs and expectations, and to achieve sustainable growth in shareholder value, our strategy includes a continued focus on strategic business growth within our core areas of strength. Our growth agenda involves four basic components:

- **Electricity Distribution**: continuing to evaluate opportunities to increase our distribution service territory;
- **Renewable Generation**: increasing the supply of clean energy for customers and earnings for our shareholder by making smart investments in renewable generation;
- **Energy Services**: providing innovative solutions to help consumers, businesses and communities meet their energy objectives, through energy management, conservation, efficient streetlighting, energy generation, energy storage, district energy, and demand response opportunities, among others; and
- **Utility Services**: leveraging our assets and expertise to help other utilities to enhance the value they provide, creating new revenue streams and economies of scale.

To keep us on course in achieving our strategy, this Strategic Direction is structured around four critical areas of performance that have stood the test of time and driven our success to date – our four Key Areas of Focus. They will guide our activities throughout the current plan as well, with Customer Value continuing to be the central driver of business strategy.
4.4 DELIVERING ON OUR VISION – FOUR KEY AREAS OF FOCUS

CUSTOMER VALUE
We will deliver value across the entire customer experience
> by providing reliable, responsive and innovative services at competitive rates

FINANCIAL STRENGTH
We will create sustainable growth in our business and our earnings
> by improving productivity and pursuing business growth opportunities that leverage our strengths – our core capabilities, our assets and our people

CORPORATE CITIZENSHIP
We will contribute to the well-being of the community
> by acting at all times as a responsible and engaged corporate citizen

ORGANIZATIONAL EFFECTIVENESS
We will achieve performance excellence
> by cultivating a culture of innovation and continuous improvement
4.4.1 CUSTOMER VALUE

As a company that provides an essential service to the public, nothing is more critical to Hydro Ottawa’s success than the ability to deliver value to our customers. This is truer today than ever, as customers take on a more prominent role in shaping the electricity landscape.

The fundamentals of customer value in the electricity business have long been considered to be quality and cost – delivering a reliable service, while operating efficiently and effectively to keep rates competitive. Our commitment to these objectives has never been stronger.

Over the course of this plan, Hydro Ottawa will invest a projected $535 million to replace aging infrastructure and enhance service reliability for our customers. And we will continue to enhance our productivity, to make our reliability investments go further for our customers.

But the customer’s place within the electricity system is also evolving. Customers are no longer just consumers of electricity, but also generators, sellers and managers of energy, equipped with unprecedented digital tools and a growing list of energy options. The expected growth in distributed energy generation and storage, combined with the product innovation and market convergence that will occur with the emerging internet of things, will present new possibilities for customer choice, control and convenience. As a result, customers will come to play a more dominant and pivotal role in the energy marketplace.

This emerging landscape will be challenging for utilities that fail to adapt; but it also presents a market for new products and services and unprecedented opportunities to enhance customer value and service. To realize these opportunities, utilities will need to make significant changes in the way they do business. In particular, they will need to increase their focus on meeting customer needs, and creating a more effortless and engaging customer experience.

They will need to expand customer value by providing a broader range of products and services, in keeping with the growing range of energy options available to customers. And they will need to consider strategic partnerships that complement and supplement their core strengths.

With this in mind, in 2015, Hydro Ottawa created the position of Chief Customer Officer (CCO), with an enterprise-wide mandate to enhance the quality of our customers’ interactions with our company. Hydro Ottawa is one of very few utilities to have taken this step. The CCO will reflect the face and voice of the customer within the company, and lead our efforts to enrich the customer experience.

What is a Smart Grid?

“The smart grid harnesses the power of information technologies to monitor, control, and optimize the use of the electricity system. These efforts are designed to increase efficiency, reduce outages, integrate more renewable forms of generation, and empower customers to more effectively control their energy use.”

“Smart grids... redefine the way electricity consumers are connected to the system that serves them.... By ‘connecting the customer to the control room,’ smart grids open up whole new possibilities – where consumers decide how much to use or sell depending on what the price is.”

Independent Electricity System Operator

www.ieso.ca
We also adopted a whole of company Customer Experience Strategy, aimed at achieving five strategic imperatives: developing a customer centric culture, knowing our customers, improving customer touchpoints, providing leading services and products, and enhancing our technologies and processes. This strategy will increase customer choice, convenience, control and ease of communication with Hydro Ottawa.

Our approach will include:

- a focus on detailed customer knowledge to allow us to anticipate and respond to customer needs in a personalized way;
- effective and innovative use of technology and communication to enhance the customer experience; and
- the development of targeted services and products that help our customers achieve their energy objectives and create value for our shareholder.

This last point means that our customers can expect to see new products and services from Hydro Ottawa in the coming years. Our services should reflect the range of energy options and uses available to our customers, and make it easier for them to adopt innovative energy solutions. Our strategy will be guided by what customers want, but is likely to include a greater role in solar generation, energy storage, and electric vehicle charging. We will also look at on-bill financing options that could spread the costs of implementing innovative technologies and increase adoption rates.

In addition to expanding what we offer, adapting to the new energy landscape demands that we re-examine how we offer products and services as well. The pervasive use of mobile devices and the emergence of the internet of things mean that no customer-focused company can ignore the increasing importance of the digital marketplace. During the course of this Strategic Direction, Hydro Ottawa will continue the digital transformation of our business, using the power of mobile and digital technology to offer service to our customers anytime and anywhere, in a more engaging and effortless manner. We will improve our use of data to offer personalized service and improve customer-facing operations. And we will work to align culture, business structure, processes and technology in the service of the customer.
A prominent element of this strategy will be a focus on mobile service offerings. According to Catalyst, 68% of Canadians owned a smartphone in 2015 – a 24% increase in one year – and the number of customers connecting to our website and online services using a mobile device is growing steadily. As part of our strategy to provide service and information to our customers where and when they want it, we will ensure that all of our online content and services are mobile-optimized, and will develop mobile applications that provide the functionality customers are looking for in a convenient and engaging format.

The transition to a Smart Grid is another important component of digital transformation. This is already under way, and will be an important driver of customer value in the next 20 years. If, as suggested earlier, the electricity ecosystem is changing to one that involves two-way power flows, a more central role for customers, and a broader range of buyers, sellers and energy resources, then the backbone of that ecosystem is a smart local distribution grid. While investments in the Smart Grid must be carefully considered, when done well they can provide significant value to electricity consumers. A study by Navigant for the Ontario Ministry of Energy estimates that smart grid investments in Ontario between now and 2035 – most of which will be made by local distributors – have the potential to deliver a net benefit of $6.3 billion, mainly in economic and reliability benefits, along with some environmental benefits. Hydro Ottawa has developed a Grid Transformation Plan that sets out a prudent and measured approach to Smart Grid development, building on the advanced metering, grid intelligence and self-healing technologies we have already deployed.

Like many other forms of technological innovation, the Smart Grid is not a destination, but an ongoing process of integrating technologies and applications that provide a benefit to customers. Our Grid Transformation Plan will proceed in lockstep with our Customer Experience Strategy, and will be tightly focused on enhancing customer value.

A central characteristic of the Smart Grid is that it merges the distribution system with high-performance communications – a powerful melding of operational and information technologies. To achieve this, Hydro Ottawa has embarked on a multi-year plan to upgrade its telecommunication infrastructure, including the installation of over 281 kilometres of dark fibre.
to support a high speed optical network in a self-healing redundant loop. When complete, there may be opportunities to leverage this infrastructure to help meet the broadband needs of our community, through “Smart City” initiatives and/or through strategic partnerships with businesses and the MUSH sector (municipalities, universities, schools and hospitals).

This underscores the fact that a Smart Grid is a foundational component of a Smart City, and there may be opportunities to collaborate for broader community benefit. The conversion of Ottawa’s streetlights to intelligent LEDs is another example. This technology provides not only adaptive lighting (dimming) and asset management capabilities (notification of burnouts before they happen), but also community safety features. For example, it can detect gunshots and automatically shift to maximum lighting in the affected area, making it nearly as bright as day.

Conservation and Demand Management (CDM) programs also present an excellent means of enhancing customer value. Hydro Ottawa has been involved in the design and delivery of award-winning CDM programs since 2005. Since 2011, all electrical utilities in Ontario have been assigned mandatory CDM targets under the terms of their distribution licences. Those that meet and exceed their targets benefit from financial incentives.

Between 2011 and 2014, Hydro Ottawa’s CDM programs helped our customers to conserve 414.9 gigawatt hours of electricity - equivalent to removing 54,000 homes from the grid. Under a new six-year plan (2015-2020), our CDM programs are expected to achieve another 395 gigawatt hours in savings. At an estimated cost of 4.4 cents per kilowatt hour of energy savings (much lower than the cost of generating and delivering a kilowatt hour) these programs represent excellent value to our customers.

Our Talent Management Strategy will also continue to play a central role in enhancing customer value, helping to embed a customer-centric culture throughout the organization. Customer focus is emphasized at all stages of the talent management lifecycle, from resource planning, hiring and deployment, to training, development and performance management.

4.4.2 FINANCIAL STRENGTH

Hydro Ottawa has continued to achieve strong financial results over the past several years, meeting and exceeding the targets set out in our previous five-year plan. Our objective over the next five years is to continue this trend of solid financial performance, while creating sustainable growth in our business and our earnings. To achieve this, Hydro Ottawa will maintain a focus on strategic growth within our core areas of strength.

Since the introduction of a dividend policy in 2004, Hydro Ottawa has delivered almost $200 million in dividends to the company’s shareholder, the City of Ottawa. Under the current plan, this total will increase to nearly $300 million by 2020.

In keeping with our previous Strategic Direction, Hydro Ottawa has achieved significant strategic growth over the past several years, particularly in our renewable generation business. As we continue to pursue this strategy, access to capital will be critically important. Among several approaches to meet this requirement, the company is seeking an amendment to its dividend policy. The amended policy would provide higher than historical dividends to our shareholder, while retaining some of the increased profits from growth within the company, to ensure we continue to enjoy access to capital on favourable terms and to safeguard our credit rating.
As with all other elements of this five-year strategy, our plan for financial strength is based on our strategic focus on the customer. Meeting customers’ needs is not only good service, it is also good business. Over the next five years we expect to meet an expanding range of needs for a growing array of customers, creating long-term value for our shareholder and reducing costs, while helping to build a smart energy future.

In executing this strategy, Hydro Ottawa will become – and is already becoming – a more vertically integrated corporation, with new affiliates operating competitive businesses that help to drive business growth. We are already playing a bigger role in meeting the increasing demand for renewable power, focusing on opportunities that offer stable revenues through long-term power purchase agreements. We will continue to grow this business throughout the course of the current plan. We will also continue to leverage our core capabilities and assets to develop new revenue streams and generate economies of scale. This includes providing an expanded range of services to our customers, strengthening our position as the “trusted energy partner” for major institutions, businesses and developments, and providing services to other utilities to enhance the value they provide. It may also include expanding our utility service territory should appropriate opportunities arise.

In total, when the expansion project at Chaudière Falls is complete, Hydro Ottawa’s renewable energy capacity will be more than 128 megawatts – enough to power 107,000 households with clean, renewable energy.

Electricity Distribution

For more than 100 years, Hydro Ottawa and its predecessor companies have delivered a reliable supply of electricity to Ottawa homes and businesses. That core service is the bedrock of our success.

The Ontario Energy Board’s December 2015 approval of Hydro Ottawa’s electricity distribution rates for the years 2016 to 2020 puts these operations on a stable financial footing throughout the period of this plan. This will allow Hydro Ottawa to make important investments in our distribution system to maintain reliable service for the future, without compromising the company’s financial strength.

At the same time, revenue growth under the current regulatory model is modest, and this trend will continue throughout the term of the current plan. In order to successfully manage the challenges of aging infrastructure, grid modernization and high retirement rates in the skilled trades, which require investments in new equipment and apprenticeship programs, Hydro Ottawa will need to maintain its focus on cost containment and productivity improvement. These strategies have been an essential part of Hydro Ottawa’s healthy financial performance in recent years.
Customer growth also has an impact on financial performance, since electricity distribution involves significant economies of scale. Some customer growth occurs organically as development occurs within Hydro Ottawa’s service territory. Our customer base grows by approximately 1 percent per year. More significant growth could occur through consolidation with other local electricity distribution companies. Hydro Ottawa will continue to examine opportunities to expand our service territory through mergers or acquisitions where there is a clear benefit to our customers and our shareholder. We will also continue to seek opportunities to partner with and provide services to other utilities, leveraging our core systems and our expertise to create new revenue streams and economies of scale. This element of our business strategy is described further under Energy and Utility Services, below.

**Renewable Energy**

Hydro Ottawa is a leader in renewable energy generation. The company is the largest municipally-owned producer of green energy in Ontario by a wide margin, and that leadership position has been significantly strengthened during the period of the previous Strategic Direction. Run-of-the-river hydroelectric facilities account for a significant portion of this growth. Relying on the natural flow of the water source and producing no carbon emissions or pollution, this is one of the most environmentally sustainable forms of electricity generation, and represents a steady, renewable power source that is available 24/7. Moreover, the bulk of Hydro Ottawa’s hydroelectric plants are located close to where power is needed most, serving Ottawa’s downtown core, where demand is growing and supply is constrained.

In August 2012, Hydro Ottawa acquired three power stations and additional water rights from Domtar Corp. at Chaudière Falls on the Ottawa River, adding to Hydro Ottawa’s existing hydro facilities next door. An expansion project is under way at the former Domtar site, involving the construction of a new 29 megawatt facility that will come online in 2017, backed by a 40-year power purchase agreement with the IESO. This project will also give the public access to the site, in a revitalized form, for the first time in over 100 years. This will include pedestrian and cycling access and a view of the falls from three viewing platforms.
...our Energy Services team continues to be the City of Ottawa’s preferred partner for energy management initiatives, with numerous energy cost reduction projects planned and underway.
In the coming months, Hydro Ottawa expects to complete the purchase of the Hydro Quebec facilities at Chaudière Falls – an additional 27 megawatts of installed capacity. When the transaction is complete, Hydro Ottawa will own all of the power stations at Chaudière Falls, along with the associated water rights and the ring dam previously held jointly with Domtar and Hydro Quebec. Upon completion of the expansion project at the former Domtar site, scheduled for 2017, Hydro Ottawa will have a total of 85 megawatts of renewable generation capacity at Chaudière Falls. Most of this power is covered by long-term power purchase agreements, providing stable revenues and minimizing exposure to spot market volatility.

In addition, in July 2015, Hydro Ottawa completed the purchase of 10 run-of-the-river hydroelectric facilities from Fortis Inc., in Ontario and nearby New York State. This represents an additional 30.9 megawatts of green generation capacity.

Given the company’s expertise and track-record with this type of project, Hydro Ottawa continues to examine opportunities to expand its hydroelectric generation capacity, with a preference for opportunities that involve stable pricing under long-term power purchase agreements. Under the right circumstances, further strategic growth of this nature could occur within the time frame of the current plan.

In addition to its powerhouse assets, Hydro Ottawa is the majority owner of two landfill gas-to-energy plants, at Trail Road and Moose Creek, with a combined generating capacity of 10.2 megawatts. This technology has matured in recent years, and is providing growing production and revenues, along with the environmental benefits of producing clean energy from previously flared-off landfill gas. In 2017, the Trail Road facility will hit 10 years of successful operation, and there is potential to expand both plants by approximately one megawatt each during the period of this plan.

In total, when the expansion project at Chaudière Falls is complete, Hydro Ottawa’s renewable energy capacity will be more than 128 megawatts – enough to power 107,000 households with clean, renewable energy.

Solar power, distributed generation, co-generation, and district energy opportunities also remain a focus for future growth. Work is under way to install solar panels on the rooftops of 8 municipal buildings owned by the City of Ottawa, totalling 2.4 megawatts of capacity.

**Energy and Utility Services**

A third driver of financial strength over the next five years will be the services we provide to a growing range of customers to help them meet their energy needs and objectives, and to other utilities to help them enhance the value they provide. These services can be grouped into two categories. In both cases, they leverage the existing assets and expertise of Hydro Ottawa and its subsidiary companies:

**Energy Services:** providing innovative solutions to help consumers, businesses and communities meet their energy objectives, through energy management, energy retrofits, conservation, efficient streetlighting, energy generation, energy storage, district energy, demand response, and greenhouse gas reduction, monitoring and reporting, among others; and

**Utility Services:** leveraging our core systems and expertise to help other utilities to enhance the value they provide, creating new revenue streams and economies of scale.
In addition to the broad range of CDM programs that the company offers, Hydro Ottawa has long been a leader in energy management services, helping larger customers (commercial, industrial and institutional) as well as the City of Ottawa to reduce their energy costs. These services range from opportunity analysis to full design and implementation of “turnkey” energy efficiency projects. Since 2014, our capability in this area has been strengthened through our partnership with Noveda Technologies, whose EnergyFlow Monitor tracks energy and water use in real-time at one-minute intervals and provides online access anytime, anywhere. Hydro Ottawa is the exclusive Canadian distributor for EnergyFlow products.

As the range of options available to our customers expands to include energy generation, energy storage, district energy, and demand response opportunities, among others, Hydro Ottawa is expanding the range of services it provides, drawing on its core expertise with renewable technologies and infrastructure design, construction and management. These capabilities will make Hydro Ottawa a partner of choice for many customers, particularly for projects and facilities with significant scale, and our goal is to be a trusted energy advisor across the full range of options. In some cases, this may involve advisory services or project management only, while in other cases it may involve the design, construction and/or ownership of energy infrastructure. Our approach will be versatile and tailored to the customer’s needs and objectives.

As part of this business line, our Energy Services team continues to be the City of Ottawa’s preferred partner for energy management initiatives, with numerous energy cost reduction projects planned and underway. In connection with this partnership, between 2016 and 2020, Hydro Ottawa will complete a conversion of Ottawa’s streetlights to efficient LEDs with adaptive lighting technology, and will assume responsibility for streetlight maintenance. This conversion of 58,000 streetlights will pay for itself in approximately six years, and thereafter will save the City an estimated $4 million per year in energy costs. Maintenance costs will also be lower, as LED fixtures last longer. Hydro Ottawa has completed a similar conversion in Pembroke, and is actively pursuing opportunities to provide similar services to other municipalities.

We will also proactively seek opportunities to partner with other utilities in service delivery. For example, we currently provide planning and delivery of CDM programs on behalf of Renfrew Hydro Inc. This approach could be replicated elsewhere, and extended to other types of services where we have expertise, such as asset management, design and construction, smart grid development, human resources, customer contact and billing, among others. 21st century utilities require sophisticated and expensive systems for customer service management, billing and collections, and the safe and efficient operation of increasingly “smart” distribution networks. These systems may be out of reach for smaller utilities. For Hydro Ottawa, by contrast, leveraging assets and expertise to provide these services to other utilities can create synergies that deliver savings to ratepayers, and additional value to our shareholder.

In addition, Hydro Ottawa is helping to commercialize technologies that have proven effective in its own electricity distribution business – for example, in the areas of power quality monitoring and utility cable testing.

In sum, energy and utility services are set to become a bigger part of Hydro Ottawa’s business, and a bigger contributor to its financial strength. This will result in a more vertically integrated business structure, with complementary business lines and competitive affiliates helping to drive business growth.
4.4.3 ORGANIZATIONAL EFFECTIVENESS

The strategic objectives outlined in this plan represent an ambitious agenda for enhancing customer, shareholder, and community value. Achieving these objectives will require an effective and constantly learning organization, with the right skill sets and organizational capacity to deliver on existing and new business lines.

In pursuit of this goal, we will cultivate a culture of innovation and continuous improvement, focusing on three outcomes in particular: a safe and healthy work environment; an engaged, aligned and prepared workforce; and efficient and effective operations that enhance the customer experience.

As our business is changing, the profile of our workforce is changing as well. It is increasingly diverse in age, skills, background, belief, ethnicity, sexual orientation, and in many other ways. We aim to be a great employer for great people, and to create a thriving and respectful workplace for all of them.

Embracing Change and Disruption

An essential element of our strategy for the next five years is to ensure Hydro Ottawa is ready to embrace change and disruption in our sector. In a period of significant transformation, the ability not only to accommodate change, but to make the most of it, is likely to be a distinguishing characteristic of those utilities that continue to thrive. To ensure Hydro Ottawa is one of those companies, we will:

- **Cultivate awareness** – foster awareness of the forces that have the potential to disrupt our business and industry, so we can take action today to prepare for disruption’s impact tomorrow;

- **Build the right culture** – develop a resilient, innovative culture so we can withstand disruption in the future while taking full advantage of today’s opportunities;

- **Foster agility** – embrace new ways of working and making decisions to avoid becoming mired in the bureaucracy that can bring change to a halt; and

An essential element of our strategy for the next five years is to ensure Hydro Ottawa is ready to embrace change and disruption in our sector.
• **Develop and deploy effective resources** –
acquire and deploy the best people,
technology and financial resources so we
 can be more resilient and competitive
in the face of disruption.

**Health and Safety**
A fundamental component of Hydro Ottawa's
commitment to operating efficiently and
effectively is the very high priority we place on
protecting the health and safety of our employees
and our community.

We have established an integrated health, safety
and environment management system (HSE) that
has achieved and maintained certification to the
international standards of Occupational Health
and Safety Assessment Series (OHSAS) 18001 and
International Organization for Standardization (ISO)
14001 since November 2007. We provide safe work
practices training for all employees consistent with
industry best practices, and our company’s safety
performance has been solid, with the number of
medical aid injuries, the number of lost work days,
and the lost workday severity rate all declining over
the past few years. Important priorities for the coming
years include ensuring our HSE policies and practices
are being adhered to by our contractors, expanding
these programs to newly acquired companies and
employees in a timely manner, and continuous
improvement across the HSE system. Health
and safety will continue to be a primary focus
for the company.

**Workforce Capacity and Capability**
A highly skilled, properly trained and knowledgeable
workforce is essential to Hydro Ottawa’s continued
success. Like many other companies and utilities,
Hydro Ottawa faces challenging workforce
demographics that require a concerted response.
The company’s comprehensive Talent Management
Strategy is aimed at anticipating and meeting talent
needs, through planning, talent attraction and
acquisition, effective deployment of resources, and
performance management and development. Hydro
Ottawa aims to be a great employer for great people,
and the company has been consistently recognized
as a top employer across a range of categories.
More than 40 percent of Hydro Ottawa’s workforce is expected to retire in the next 10 years. This represents a loss of 7,423 years of experience, including 4,784 years of trades and technical experience. Sixty-six percent of frontline supervisors and managers in trades and technical occupations are expected to retire by 2024.

To ensure success, we have increased our focus on renewing our workforce by attracting and developing young workers. It is not simply a matter of recruiting replacements for retiring workers; we must also plan for and facilitate an effective transfer of knowledge and skills from our veteran workforce to the next generation, including the next generation of people leaders. At the same time, young workers bring a fresh perspective and new skills to our workforce.

In recent years, Hydro Ottawa has been recognized as a leader both in older worker and retiree engagement, through our multiple-award winning “Prime Time” program, and as one of Canada’s Top Employers for Young People (2014, 2015 and 2016). This success in engaging the full demographic spectrum of our workforce facilitates the transfer of knowledge and skills from one generation to the next. Our apprenticeship and intern programs also contribute to this objective, including our partnership with Algonquin College in the delivery of an award-winning two-year Powerline Technician Diploma Program and our Engineer Intern Training and Development Program.

We are also working to attract and develop new skill sets that will be needed as we work toward a smart energy future. This will ensure we are able to build and sustain relationships with our customers, innovate and transition to new technologies, develop new products, services and work processes, and meet changing business and regulatory demands.

Efficiency and Productivity
One of the central challenges facing Hydro Ottawa and other utilities is the need to invest heavily in the replacement and modernization of aging infrastructure without putting upward pressure on customer rates, which are already rising due to increased electricity commodity prices. In this context, achieving efficient and effective operations has never been more important to Hydro Ottawa; we must continually find ways to work smarter and more efficiently – and we are doing just that.

Since 2007, Hydro Ottawa has set and achieved annual productivity improvement targets, focusing on maximizing the efficiency and effectiveness of our operations by reducing waste and optimizing productivity at every opportunity. This will continue to be a central focus, with ongoing efforts to improve the efficiency of our capital work, reduce operating costs, maximize the productivity of our workforce through organizational rightsizing and right-skilling, and implement technology solutions that enhance customer value while improving efficiency. Through these efforts, Hydro Ottawa has been able to minimize rate increases related to our operations (distribution rates), although electricity commodity rates (which are beyond Hydro Ottawa’s control) have and will continue to rise.

Leveraging Technology
Choosing and deploying the right technologies is a crucial aspect of business success for modern utilities. At Hydro Ottawa, our technology decisions are based on two basic considerations: enhancing service to our customers, and creating efficiencies that will increase our competitiveness and improving functionality to be more agile and resilient in the face of industry disruption. Over the course of this plan, Hydro Ottawa will continue to adopt innovative technologies that solve business problems and enhance customer value.

One way Hydro Ottawa is leveraging technology to enhance productivity is through our “Anything, Anytime, Anywhere” approach – making technology tools available to our workforce where and when they are needed. Putting better tools in the hands of field workers improves efficiency and increases wrench time.
In addition, the use of enhanced Asset Investment Planning tools is improving the efficiency of capital project planning and execution, and customer self-serve technology enhances the customer experience while reducing operating costs.

Recognizing that the traditional distinction between information technology and operational technology is becoming outdated, in early 2016, Hydro Ottawa integrated both functions under our Chief Information Officer. This will enable more effective technology planning and strategy, more seamless interaction of systems and applications, and more robust cyber security practices.

A critical mandate for Hydro Ottawa’s technology team is to ensure the security of our distribution system and our information systems against cyber threats such as hackers. The company works closely with industry partners and security agencies, and adopted an updated cyber security roadmap in 2015. Hydro Ottawa will continue to draw on both internal and external resources to ensure we stay abreast of new developments in this fast-moving area.

4.4.4 CORPORATE CITIZENSHIP
As a community company that delivers an essential service to Ottawa residents – and whose predecessor companies have done so for more than 100 years – contributing to the well-being of the community has always been a part of Hydro Ottawa’s core mandate. We know how much energy matters to the daily lives of our customers and our community, and the responsibility to provide it efficiently and reliably has shaped the way we see ourselves as a company.

Out of this mandate, a commitment to fulfill our governance, environmental and social responsibilities as a company has naturally evolved. This is a commitment we will continue to enhance over the course of this plan.

This approach is not only true to our roots as a company; it enhances our corporate performance as well. As leading companies have come to realize, good corporate citizenship can and does drive growth in value, as stakeholder trust creates new opportunities, reassures regulators, increases customer loyalty, and attracts good business partners and talented employees.

...we will continue to emphasize four aspects of good corporate citizenship: good governance; stakeholder engagement; environmental sustainability; and investing in our community.
To deliver on our commitment, we will continue to emphasize four aspects of good corporate citizenship: good governance; stakeholder engagement; environmental sustainability; and investing in our community.

**Corporate Governance**
Good corporate governance is the glue that holds together responsible business practices. By making governance a core focus over the past several years, Hydro Ottawa has established leading governance practices for a company of its size and mandate, and adheres to high standards of integrity, transparency and disclosure. We will continue to ensure that this is the case, by regularly assessing emerging best practices, and comparing ourselves to the best-governed private and public sector organizations.

**Stakeholder Engagement**
We also recognize that maintaining the trust and confidence of our stakeholders is essential to the company’s performance. We are committed to taking into account the concerns and interests of all our stakeholders, including employees, customers, suppliers, our shareholder and the communities and environment in which we operate. Our commitments to these stakeholders are entrenched in the guiding principles set out in this Strategic Direction. We will continue to operate with their interests in mind, and will actively encourage their participation in shaping the future of the company. Our emphasis will be on increasing our understanding of stakeholder requirements and perceptions, and timely, accurate, and transparent disclosure mechanisms and communication.

**Environmental Sustainability**
Hydro Ottawa is already making an important contribution to environmental sustainability by generating renewable energy and actively promoting energy conservation. Equally important, though, is the need to continuously reduce the impact of our own operations on the environment through the use of “green” technology, resource-conserving activities and practices, and other means. This has been an increasing focus for Hydro Ottawa in recent years through our Environmental Sustainability Strategy, which will be renewed and updated during the course of the current plan.

Between now and 2019, Hydro Ottawa will be replacing our office facilities and some of our operational facilities, which have reached end of life. Our new administration building will be built to a LEED Gold standard, and our operations centres to a LEED Silver standard. As such, in addition to enhancing our operations, these facilities will significantly reduce our environmental impact.

The implementation of Smart Grid technologies also has a positive impact on Hydro Ottawa’s environmental performance, since it is often possible to solve outages and complete other tasks without sending a truck.

**Community Investment**
Our company has a proud tradition of contributing to quality of life in our community. Our United Way workplace campaigns have raised more than two million dollars in the past 15 years. Our Brighter Tomorrows Fund – a partnership with the United Way – has contributed more than $675,000 since 2011 to help housing and homelessness agencies make energy efficiency upgrades. Our electricity safety and conservation presentations educate more than 17,000 children and youth per year. And our Community Partnership Investments, along with our employees’ volunteer efforts, have contributed to many worthwhile community initiatives. These efforts will continue, and will periodically evolve to achieve maximum impact and align with our role in the community.
Creating long-term value for our shareholder
5. Financial Outlook

5.1 FINANCIAL OUTLOOK

This Financial Outlook presents high-level projections for Hydro Ottawa’s revenues, expenses and major capital expenditures that support the company’s business lines for the period 2016-2020, and the underlying key assumptions and risks.

Hydro Ottawa’s objective with respect to financial performance is to achieve sustainable growth in our business and our earnings. This creates value for Hydro Ottawa’s sole shareholder, the City of Ottawa, including dividends and growth in the company’s equity. It also enhances our ability to meet the energy needs of the communities and customers we serve. To achieve this objective of sustainable growth, Hydro Ottawa will continue to pursue excellence and strategic growth in our core business lines: providing efficient and reliable electricity distribution services; generating electricity from renewable resources; and providing a growing range of energy and utility services that help customers to meet their energy needs and objectives and other utilities to enhance the value they provide. We will continue to invest heavily in our core distribution and generation assets, while improving productivity across all of our businesses and pursuing strategic business growth opportunities that leverage our strengths.

Hydro Ottawa has achieved solid financial results since our 2012-2016 Strategic Direction was issued, and the aggressive growth targets set out in that plan will be surpassed. This continues a trend of consistent and sustained growth in net income and shareholder equity over time. Since the introduction of a dividend policy in 2004, Hydro Ottawa has delivered almost $200 million to the City of Ottawa. This five-year Financial Outlook projects continued growth in shareholder value, including $185 million in net income over the 2016-2020 period and dividends totalling $100 million, bringing the cumulative dividend total to $300 million by 2020.

The financial projections set out here reflect a continued focus on strategic business growth in our core areas of strength, as set out in the preceding sections of this Strategic Direction. They take into account current and future economic trends, the regulatory environment, and capital investments required to maintain and upgrade our electricity distribution and generation infrastructure.

5.1.1 REVENUE PROJECTIONS

Hydro Ottawa’s revenues are projected to grow on average by 6.0% over the period of the Financial Outlook. This reflects continued strategic growth in generation, and energy and utility services. Electricity distribution revenues

This five-year Financial Outlook projects continued growth in shareholder value, including $185 million in net income over the 2016-2020 period
are projected to grow moderately due largely to the significant capital investment in aging infrastructure, and projected customer growth partially offset by declining average consumption as indicated in the chart above.

The largest component in Hydro Ottawa’s revenue forecast is the cost of power recovered from the customer through provincially established rates. Cost of power is a flow-through amount, which poses limited risk to Hydro Ottawa’s financial performance either positively or negatively.

Hydro Ottawa filed a Custom Incentive Rate-setting application with the Ontario Energy Board (OEB) in April 2015 for electricity distribution rates for the period January 1, 2016 through December 31, 2020. Hydro Ottawa’s decision to file a Custom Incentive Rate application was based upon the Company’s significant capital requirements during this period. The OEB held an open and transparent hearing process and, in the course of developing the 2016-2020 rate application, Hydro Ottawa invited public comment on the proposed rate application and hosted a public presentation session. The OEB rendered a decision on most elements of the application on December 22, 2015, and on February 25, 2016 for pole attachment rates. For an average Hydro Ottawa residential customer, the average change in distribution rates from 2016 to 2020 will be approximately 2.6 percent.

As directed by the OEB, Hydro Ottawa is incrementally transitioning residential customers to a fully fixed distribution charge by 2020. The distribution charge is the revenue retained by Hydro Ottawa, and represents less than 20 percent of the total bill. The remaining 80 percent includes commodity charges, provincially regulated charges and harmonized sales tax. These revenues pass through Hydro Ottawa to electricity generators, Hydro One, the Independent Electricity System Operator, the provincial government, and others.

Generation revenue has increased significantly in the last five years and this trend will continue.
The most notable increase in generation revenue is projected to begin in 2017 from the completion of the new 29 megawatt hydroelectric facility at Chaudière Falls. Generation revenue projections are based on pricing in accordance with secured Power Purchase Agreements and open market projections, along with 40-year water level data to guide production assumptions.

The Energy and Utility Services business lines assume the continuation and expansion of the existing business model and annual revenue growth, including streetlight LED conversion and maintenance through a partnership with the City of Ottawa.

The five-year revenue profile for Hydro Ottawa, excluding cost of power flow-through, is as indicated in the chart below.

### 5.1.2 COST DRIVERS

**FLOW THROUGH COST OF POWER**

Similar to revenues, Hydro Ottawa’s largest component of operating expense is the cost of power purchased from the provincial grid, which fluctuates based on the commodity price

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**Revenue**

![Revenue Chart](chart.png)

<table>
<thead>
<tr>
<th>Year</th>
<th>Revenue ($ Millions)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2016</td>
<td>232</td>
</tr>
<tr>
<td>2017</td>
<td>258</td>
</tr>
<tr>
<td>2018</td>
<td>278</td>
</tr>
<tr>
<td>2019</td>
<td>292</td>
</tr>
<tr>
<td>2020</td>
<td>293</td>
</tr>
</tbody>
</table>
for electricity. This cost is designed by the OEB to be fully recoverable through the commodity rates charged to the customer. In the absence of regulatory change, there is limited risk to Hydro Ottawa’s financial performance from the cost of power. Risk arises from Hydro Ottawa Limited’s full responsibility for bad debts, and cash flow impacts from commodity rate increases, as the cost of power is the single largest monthly expenditure of the company.

OPERATING, MAINTENANCE AND ADMINISTRATION COSTS

The most significant cost directly controllable by management is operating, maintenance and administration (OM&A) expenses. This includes internal labour costs, direct material and program costs, and external service contracts. Hydro Ottawa Limited’s approved 2016-2020 electricity distribution rates prescribe OM&A increases to a minimal 1.91% per annum. Productivity improvements and cost containment are a must to offset the inflationary cost of labour, materials, and external service contracts integral to our business. These include operational reviews, reduced overtime usage, cost-effective benefit plans, renegotiation of external service contracts, management of overdue customer accounts and schedule optimization of crews and dispatch, amongst others.

Operating, Maintenance and Administration Expenses

![Chart showing operating, maintenance, and administration expenses from 2016 to 2020.](chart.png)
Gross Capital Expenditures

CAPITAL EXPENDITURES
Aging infrastructure remains a reality for Hydro Ottawa and other utilities, with implications for service reliability. The need to invest heavily in electricity distribution infrastructure to maintain a high-quality service represents a significant cost driver. Electricity distribution and generation reliability is contingent upon life-cycle investment programs. The regulated distribution business will incur the majority of capital expenditures, as we continue to invest to sustain the reliability of the distribution system through rehabilitation and upgrades, as well as expansion of sub-stations to accommodate customer growth and provide sufficient capacity for emergency and peak load situations.

Other projects that are critical to Hydro Ottawa’s business strategy also require significant capital investment, including the construction of a new 29 megawatt generation facility at Chaudière Falls, a facility renewal plan to replace end-of-life office and operational facilities, and a telecommunications plan to improve connectivity for all stations and substations.
Hydro Ottawa’s investment in capital infrastructure over the period of the 2012-2016 Strategic Direction is projected to be $775 million, and this level of investment will continue over the 2016-2020 period with a projected investment of over $800 million. Hydro Ottawa’s amortization expense and financing charges are reflective of this capital investment, and as a result are projected to increase over the period.

FINANCIAL PROJECTIONS
In summary, with Hydro Ottawa’s Custom Incentive Rate application approved in December 2015 for the 2016 to 2020 period, funding to maintain the reliability of Hydro Ottawa’s electricity distribution operations is sustained. This, combined with strategic growth in generation, the distribution network, and energy and utility services, enables the company to project $185 million in net income over the next five years.

<table>
<thead>
<tr>
<th>Consolidated Statement of Income ($millions)</th>
<th>2016</th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
<th>2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Revenues</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Power Recovery</td>
<td>950</td>
<td>979</td>
<td>1,008</td>
<td>1,038</td>
<td>1,069</td>
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<tr>
<td>Distribution Sales</td>
<td>165</td>
<td>172</td>
<td>181</td>
<td>194</td>
<td>196</td>
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<tr>
<td>Generation Revenue</td>
<td>22</td>
<td>30</td>
<td>42</td>
<td>42</td>
<td>43</td>
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<tr>
<td>Other Revenue</td>
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<td></td>
<td>1,182</td>
<td>1,237</td>
<td>1,286</td>
<td>1,330</td>
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<tr>
<td>Expenses</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Purchased Power</td>
<td>950</td>
<td>979</td>
<td>1,008</td>
<td>1,038</td>
<td>1,069</td>
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<tr>
<td>Operating, Maintenance &amp; Administration</td>
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<td>1,082</td>
<td>1,124</td>
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<tr>
<td>EBITDA</td>
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<td>129</td>
<td>140</td>
<td>140</td>
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<tr>
<td>Amortization, Interest &amp; Taxes</td>
<td>66</td>
<td>77</td>
<td>91</td>
<td>102</td>
<td>101</td>
</tr>
<tr>
<td>Net Income from Current Operations</td>
<td>34</td>
<td>36</td>
<td>38</td>
<td>38</td>
<td>39</td>
</tr>
</tbody>
</table>
5.2 RISKS AND UNCERTAINTIES

The ability to manage and mitigate risk, to maintain flexibility, and to respond effectively to changes in our business environment will be critical to Hydro Ottawa’s continued success.

While we are confident in our assessment of Hydro Ottawa’s business environment as a whole, future events may differ significantly from what we expect. Some of our assumptions may prove unwarranted. Subsequent events could change the complexion of current trends, and not all opportunities currently envisaged may turn out to be viable.

Our Enterprise Risk Management (ERM) system establishes the infrastructure to allow us to predict and respond to risks and opportunities impacting our Strategic Direction and business activities, and to do so in an effective, consistent and integrated manner. Our five-year Business Planning cycle, with annual updates, also enables continuous review of assumptions and the state of the market in which we operate.

Some of the key factors that could adversely impact the achievement of the projected results above include the following.

### Economy

The state of the local, provincial, and national economy could have a significant impact on Hydro Ottawa’s business performance, through factors such as interest rates, inflation, customer credit conditions, and weakening demand for electricity and/or value-added services.

### Policy and Regulatory Environment

Hydro Ottawa’s largest businesses operate in a regulated environment. Our business performance could be adversely affected by significant policy and regulatory changes, including but not limited to changes in rate regulation, policies relating to the production and procurement of renewable and clean energy, conservation and demand management, the consolidation of electrical utilities, restrictions on utility service provision, or changes to license requirements.

### Potential Disruption of Utilities’ Business Model

The convergence of distributed energy resources (DER) with information technology (IT) could disrupt the traditional business model of electrical utilities. As IT platforms develop to tie grid data, DER data and customer-specific information together into a ‘virtual power plant,’ they may also become capable of ‘networking’ multiple
such self-contained virtual power plants into a single energy system. In time, they might be in a position to take over swaths of a local distribution company’s service footprint. In addition, organizations capable of developing distribution-edge software platforms and translating them into sustainable value propositions to customers could progressively dislodge the LDC from the customer interface, reducing the opportunity for revenues from value-added services.

**Diversification of Revenue: Implications for Credit Ratings**

Over the last decade, the consumption of electricity in Ontario, and elsewhere in North America, has remained constant, reflecting underlying, flat economic trends, as well as the impact of conservation. In response, utility rates in general have increased in order to meet revenue requirements.

With a view to containing rate increases for its customers, and recognizing the potential disruption of the business model for electrical utilities, since 2011 Hydro Ottawa has attempted to diversify its revenue and assets by expanding its presence in unregulated lines of business, including renewable energy generation and energy management services. This will continue through the period of this strategic plan.

The need for electrical utilities to diversify their revenue and assets portfolio is slowly gaining recognition in the financial community. In the short term, however, there could be an adverse impact on Hydro Ottawa’s credit ratings, which could increase the cost of borrowing.

**Access to Capital**

As is the case with many municipally-owned electrical utilities, the infusion of additional shareholder equity in order to achieve growth objectives may not always be a feasible option for Hydro Ottawa. As a result, there may be constraints on the Corporation’s debt capacity, which could in turn affect its ability to achieve some of the growth objectives outlined in the 2016-2020 Strategic Direction.
Market Prices for Electricity
Where revenue from electricity generation is linked to market prices, there could be revenue fluctuation due to a number of factors, including: the amount of excess generating capacity relative to load in that market; the structure of that market; weather conditions which impact electrical load; growth in demand for electricity; absolute and relative prices for energy; and developments in conservation and demand management.

Exchange Rate Fluctuations
Hydro Ottawa uses the Canadian dollar as its functional currency. It already owns generation assets in the United States, and might during the next five years expand its operations and assets in that market. A significant depreciation of the value of the US dollar relative to the Canadian dollar may adversely affect the value of the Corporation’s US-based assets and the related revenues. Conversely, a significant depreciation of the Canadian dollar relative to the US dollar may affect the Corporation’s capacity to finance and the expected rate of return from its US investments.

Climate Change
Climate change is affecting the rate of occurrence of extreme weather events, and in some cases their severity as well. The impact of these events on North America’s aging electricity grid will test utilities’ capacity to respond to emergencies and restore power in a timely manner. Over the long term, grid renewal investments, such as those planned by Hydro Ottawa, should make the electricity system more robust. Regulatory and public support for such investments and the related management systems cannot be taken as a given, though expectations for utilities to be responsive, agile and resilient during and after extreme weather events are likely to remain. There could therefore be a disconnect between the climate change resilience expected of utilities and the resources available to achieve this level of resilience.

Hydrology
The amount of electricity generated at Hydro Ottawa’s hydro-electric facilities depends upon available water flows and weather conditions, which vary naturally from season to season, and from year to year. Water flows may also be affected by natural disaster or through government controls and policies on water levels.
Hydro Ottawa will continue to provide efficient, reliable electricity distribution services to customers at a competitive cost, generate green power, and provide energy and utility services and conservation expertise while maintaining sustainable earnings.

Dependence on Partners
The growth opportunities identified in the strategic plan may depend upon the presence of willing partners, and/or partners that perform to long-term expectations. An absence of willing merger or acquisition partners, or utilities and others willing to partner on utility service delivery, could negatively impact Hydro Ottawa’s ability to deliver on its financial objectives, as could the underperformance of key business partners.

Workforce Demographics
Across the electricity sector, retirements are outpacing new entrants to the workforce, which could have an adverse impact on the ability of the Corporation to build a sustainable workforce and achieve its business objectives. Hydro Ottawa’s investments in apprenticeships, internships, diversity, knowledge management, succession planning and retiree and older worker engagement programs are designed to manage risks relating to workforce demographics.

Technology Infrastructure
The Corporation’s business performance is dependent upon complex technology systems, including customer information and billing systems, advanced metering, and operational technologies such as geographic information systems, system control and outage management systems. The failure of one or more of these key systems, or a failure of the Corporation to plan effectively for future technology needs or transition effectively to new technology systems could adversely impact the Corporation’s business operations.

Cyber Security
The Corporation’s reliance on information systems and expanded data transmission and exchange networks, in conjunction with the growing extent of systems and data integration within the electricity sector, increases its exposure to information security threats, including cyber security risks. A security breach, data corruption or system failure at a shared resource or common service provider, could put Hydro Ottawa’s information systems and information assets at risk.
5.3 CONCLUSION
Subject to the risks and uncertainties discussed in this document, Hydro Ottawa will continue to provide efficient, reliable electricity distribution services to customers at a competitive cost, generate green power, and provide energy and utility services and conservation expertise while maintaining sustainable earnings. The company will achieve this by continuing to invest in core distribution assets, improving productivity and pursuing business growth opportunities that leverage corporate strengths.

With the 2015 approval of the 2016-2020 Custom Incentive Rate application, Hydro Ottawa has received approval for capital investment in electricity infrastructure for the next five years. Hydro Ottawa customers will continue to benefit from reliable electricity distribution with stable, moderate, and predictable rate impacts. The company also continues to actively pursue opportunities for expansion in non-regulated business lines in accordance with the endorsed strategy.

Hydro Ottawa has established a strong financial position and is well-positioned for continued growth. Over the 2016-2020 period, the company will generate significantly greater shareholder value than under the previous five-year plan.
6. Governance and Reporting

Accountability for the effective operation of the Corporation and its subsidiaries rests with an eleven-member Board of Directors, which provides direction to the Corporation on behalf of the shareholder, the City of Ottawa. The Board provides leadership for the company within a framework of effective controls that enables risks to be assessed and managed, and is responsible for supervising the management of the business and affairs of the company and its subsidiaries.

In carrying out its oversight function, the Board of Directors is guided by a Shareholder Declaration issued by Ottawa City Council and revised from time to time.

In 2006, a separate Board of Directors was established to oversee the operations of Hydro Ottawa Limited, in accordance with the Affiliate Relationships Code for Electricity Distributors and Transmitters issued by the Ontario Energy Board. The powers and functions of that board are set out in a Shareholder Declaration issued by the Hydro Ottawa Holding Inc. Board of Directors.

On a day-to-day basis, the Corporation is led by an Executive Management Team, comprising the Corporation’s President and Chief Executive Officer and the senior executives of the subsidiaries and critical functional areas. This team oversees the alignment of business practices and strategies with the goals of the Corporation, and drives performance by managing risks and opportunities. The Executive Management Team is accountable to the Corporation’s Board of Directors through the President and Chief Executive Officer.

The Board will monitor progress against the strategic plan on a quarterly basis and make adjustments as required by changing circumstances. The Corporation will report on progress annually to the Shareholder, at the time of the Annual General Meeting. A summary of the Corporation’s financial results is provided to the shareholder on a quarterly basis through the City Manager.