

---

# **A New Paradigm In The Atlantic Region Electrical Industry**

**David Sawler**

---

## **David M. Sawler**

Mr. Sawler is a 1976 graduate in Electrical Engineering from the Technical University Of Nova Scotia. He spent 18 years working in various capacities within Nova Scotia Power Inc. In 1994, he started his own company, Integrated Energy Systems Ltd.

Over the next six years, he worked primarily with industrial power consumers as an energy consultant. A considerable amount of his time was focused on preparing his clients for the challenges and opportunities of a restructured electrical energy industry in Nova Scotia.

In late 1999, Mr. Sawler was instrumental in forming the Electricity Consumers Alliance of Nova Scotia (ECANS). He firmly believes that energy consumers must drive the change process and not leave it to Government, Regulators or the Utility Industry. Today, in his new capacity as General Manager of Copol International Ltd., a large plastic film extrusion company in North Sydney, N.S., Mr. Sawler is an active member of ECANS and an ardent supporter of restructuring the electrical energy industry in Nova Scotia to ensure a dynamic and consumer driven marketplace.

---

## **A New Paradigm In The Atlantic Region Electrical Industry**

Electrical energy is such a fundamental and essential part of our everyday lives. Imagine the ramifications if we did not have an ample, dependable and affordable supply of electrical energy for meeting even only the basic needs of life. Imagine still the much broader ramifications on the health and well being of the economy of the Region if business did not have an ample, dependable and affordable supply of electrical energy. Our economy as we know it could not function efficiently and effectively. As a Region, we would likely pay a tremendous price through the erosion of economic productivity and a decline in the Region's ability to compete.

The industrial, manufacturing and commercial sectors of this Region's economy face numerous competitive challenges, not the least of which are electricity rates and regulations. Electrical energy rates in the Atlantic Region are among the highest if not the highest in Canada today. Outdated regulations are impeding both the ability of service providers to offer the consumer alternative electrical energy solutions and the consumer to remain competitive in a global marketplace. There is a serious need for change in the electric industry.

This Region is rich in so many ways. In particular, we are energy rich yet there is no indication that the cost of electrical energy will come down unless there is a move to an open and competitive marketplace. Even with the advent of natural gas as an alternative energy source, the distribution roll-out strategy will likely create competitive disparity within the Region over an extended period of time. The application of financial incentives to encourage consumers to switch to natural gas from alternative energy sources has the potential to compound this concern even further. Technological advancements in small-scale electricity generation have made more traditional, large scale, fossil fuel fired electric power generating sources dated at best and obsolete at worst yet the Region does not support a vibrant and healthy mix of new, privately owned generating capacity. Utilities have assigned only marginal value to privately owned electric power generation yet more times than not the utility can become dependent on that generation. The demands by electrical energy consumers for a new consumer/supplier relationship are growing yet these demands are still not understood by service providers, policy makers and legislators. These along with numerous other contradictions are reasons why restructuring of the electric industry is necessary.

The point should be made that while there is a grass roots movement to restructure the electric industry in the Region, the contributions made by the local electric utilities to the Provincial economies should not be overlooked or understated. I can only speak to the Nova Scotia experience and, for the most part, that experience has been favourable. For example, consumers have enjoyed stable electricity rates since 1996. The standard of electric supply security and reliability has been relatively high, at least in the context of past consumer needs. This is a credit to the Utility and the efforts of all its employees have certainly contributed positively to the economy of Nova Scotia. However, there is still a need for change in the electric industry not because the industry is fundamentally flawed, rather it is simply a question of its relevancy in the context of current consumer needs.

---

The privatization of electric utilities has been, for the most part, a successful experience. In my view, privatization is not something that consumers should be apprehensive of. I personally had the opportunity to participate in the transition of the provincial Crown Corporation, Nova Scotia Power, to the publicly traded, Nova Scotia Power Inc. The primary rationalization for privatizing the Utility was to enable it to meet competitive challenges that were seen on the horizon at the time and to relieve the taxpayers of Nova Scotia from the burden of further Government guarantees for capital expansion programs.

Competition for the Utility is no longer waiting at the horizon. It is here now. The true test of the Utility's preparation to meet competitive pressures is upon it. To some degree, we have already seen the response to this competition with the introduction of new rate structures to encourage larger power consumers to remain customers of NSPI. They have also indicated that new rates for other customer classes are being developed. These are positive signs that the Utility is being more customer focused and responsive to competitive challenges.

While the transition for NSPI has not been without hiccups along the way, I sincerely believe that Nova Scotians are fundamentally better off today with a private Utility than a Provincially owned Crown Corporation. While it may be argued that enhancing shareholder value is now the primary driving force of the Utility, the company is leaner and less cumbersome than it was as a Crown Corporation. As a customer now, I would not hesitate in acknowledging that the Utility has made improvements in some key areas of its operations, primarily in its relationship with its customers. However, as a customer, I need more and I believe my expectations are both reasonable and achievable through a fundamental change in the electric industry of the Region.

To perhaps put things in a more direct and personal context, Copol International is very representative of the industrial/manufacturing sectors in this Region. We compete in a very aggressive plastics industry. It is not unlike the paper and forestry industries that this Region is so economically dependent upon. We have to compete against companies that are much closer to the primary marketplaces. We have to compete against companies that have energy choices and options that we currently do not have. Along with many of our customers, we have to compete against cheap imports from Asia coming in the U.S. market, particularly in the Northeast and Midwest regions. More than 85% of our production is exported into the U.S. market. Of that, nearly 70% is sold into these same Northeast and Midwest regions. We are challenged every day to meet this competition.

As a company, we need every competitive advantage that we can create on our own and that Government (at all levels) and the service sector can provide. We do not need or want handouts. What we want are supportive government policies and legislation that meet our needs and remove competitive impediments. We want a service sector that understands our needs, is responsive to those needs and helps us strengthen our competitive position. We particularly want an electrical industry that can offer consumer-specific energy solutions that will help us be more competitive. Those solutions must include both competitive pricing and a major commitment to help consumers manage energy consumption through the application of technology or management strategies.

---

Without a supply of electrical energy that is competitively priced and with the highest standards of reliability and quality we simply cannot continue to compete. If new technology and fuel sources are available that can reduce the cost of electricity generation, I would expect the service provider to take advantage of that and pass through the benefits directly to me. My core business and my whole focus must be on making plastic film. I don't need the added complexity and liability of generating electricity even if it could be produced less costly than purchasing it. I would expect a service provider to offer electrical energy at a price that reflects the cost of self-generation.

Are these reasonable expectations? In my view they are not only reasonable, they are absolutely essential.

## **Key Consumer Needs and Concerns Driven By A Fundamental Restructuring Of The Electric Industry**

- ***The Obligation To Serve***

The foundation for regulated, vertically integrated electricity monopolies is the principle of an *Obligation To Serve*. In return for this monopoly position in a defined service territory, Utilities were essentially obligated to serve all areas of their defined service territory with both a common regulated rate structure and a universal standard of system operating performance and reliability. This obligation also required that Utilities plan for future energy needs of consumers in their service territory and invest in capital upgrades to meet those future needs. As a whole, consumers have enjoyed great benefit from this basic social principle.

There are then two concerns driven by any restructuring that will fundamentally change this obligation to serve principle. First, competition for large, industrial power consumers or selective *cherry picking* by service providers may result in a marketplace that disproportionately benefits the larger consumers at the expense of the smaller. Some consumers may find that there is no competitive alternative for them depending on how they fit into the overall consumer demographics.

In a restructured, competitive electricity marketplace, much of the costs incurred by regulated Utilities to satisfy this historical *obligation to serve* principle may become *stranded* with revenues insufficient to service the debt. These stranded cost issues may have either a tendency to bias the strategies of policy makers and the content of revised legislation in favour of the local Utility or transfer a disproportionate burden of cost recovery to a smaller customer base. Determining which capital investments should be treated as stranded debt and what percentage of that debt should be recoverable by the host Utility may become an obstacle to the move to an effective competitive marketplace.

There is reason then to be concerned that in any reactionary and uninformed move to an open, competitive electricity marketplace, this fundamental social principle may have a tendency to be misplaced or forgotten in the interests of securing shareholder value in a highly competitive business sector.

**No consumer should be without an option for electric service as long as they meet some basic criteria.**

---

- ***Security Of Supply***

Most consumers have a reasonable expectation that electrical energy will be available essentially on demand in the same way that water will be available when we turn on the tap or broadcast news will be available when we turn on our radios or televisions. This is a natural expectation built up over years of receiving, for the most part, dependable supply service.

At the consumer level, electrical energy cannot be contained or stored in any traditional or practical sense. Inventories cannot be built up as a hedge against supply disruption. Nor can discounted energy be purchased and stored as a hedge against price volatility. For the most part, electrical energy is used or more precisely transformed on essentially an immediate basis. It is this immediacy of use that exposes consumers to considerable risk and vulnerability in terms of disruption of supply or any other constraints placed on the supply.

Without electricity, industry grinds to a halt; commerce essentially stops; even basic societal needs of life are seriously impacted. The cumulative societal costs of even a short disruption of electrical energy supply can be staggering. The ice storms in January 1998 in Quebec and Ontario vividly attest to the personal and economic impact from a serious disruption in electrical energy supply.

In general, the Atlantic Region has benefited from some of the most reliable electric power systems anywhere in North America. This is indeed a testimony to the efforts and commitments made by the various regulated Electric Utilities to make the necessary system development and upgrades to ensure the continuous delivery of an essential service to the consumer. This is also a derived benefit from the *obligation to serve* principle. Consumers have generally become accustomed to a high level of electric supply security and reliability.

The expectation of a secure and reliable electric supply doesn't come without a cost. As consumers, we fully understand that any business must be able to recover the costs of conducting business. However, much of the inner workings of the electric industry have been totally opaque to consumers. In a restructured electricity marketplace, consumers must have the assurance that necessary electric system upgrades and improvements are being planned, financed and carried out in an orderly and timely fashion. Competitive pricing will quickly become a moot point if supply security and reliability is eroded.

The Alberta and California electrical marketplaces are examples where restructuring has left a vacuum in the strategic planning and capital expansion functions for new generation. Serious capacity constraints have been imposed during peak power periods with consumers paying a penalty both in terms of volatile pricing and power limitations.

**Consumers have a reasonable expectation that there will be an adequate and dependable electricity supply to meet current and future needs**

---

- *Quality Of Supply*

Distinct from the security and reliability of the electric power supply, the quality of the electric power supply (essentially the voltage waveform) at the customer service entrance is a major area of concern both now and in the future. An explosion of technology has invaded every aspect of our lives. Today, the business of our society is totally reliant on technological advancements driven by the age of the microchip and microprocessors. Along with technology has come the need for higher standards in the electrical supply quality.

It is no longer relevant for electric service providers to think only in terms of the electric supply being “On” or “Off” when evaluating performance standards. These performance standards for the quality of the electric supply must also include the impact of a much broader range of power system disturbances on the consumer. This is particularly true for the industrial and manufacturing sectors. These sectors are almost totally reliant on sophisticated and sensitive process control systems that optimize production efficiency and effectiveness. The cost of recovery from even a momentary power disturbance cannot be simply defined in terms of the duration of the disturbance. Direct variable costs and indirect costs such as the loss of customer confidence and *good will* can be significant.

**Simply transferring the burden of meeting a higher power quality standard from the service providers to the consumer would not be acceptable.**

- *Supplier Dependency*

Strategically, there are risks for any business to rely on a single supplier of a product or service. Doing so makes the business vulnerable to pricing and supply pressures. Consumer choice can help to minimize the risk. For instance consumers may enter into supply contracts with both a primary and a secondary source at negotiated rates. This would give the consumer a considerable hedge against price volatility if one supplier has a short-term generation deficiency.

In some instances, a move to self-generation to displace some or all of this dependency may give a consumer a strategic advantage. However, it is unlikely that a consumer could divest itself from having an interconnection into the host Utility’s distribution or transmission network. The issue then becomes the cost to maintain that connection either as an emergency back-up supply or to supplement any self-generation. The opportunity to have a more optimal energy solution should not be constrained unnecessarily by continuing to be *captured* by the host Utility through an interconnection charge.

**Consumer choice for an energy solution that best fits their needs should not be unnecessarily constrained by host utility dependency.**

- *A Dynamic and Distributed Mix of Generation*

---

For a healthy electric power system, there must be a diverse mix of generation types and classes distributed throughout the power system. Centralization of electric power generation was an effective strategy in the past. An *Economy of Scale* principle was advocated by Utilities and was essentially driven by the cost of available technology or a political will or both. Consumers did indeed benefit from this philosophy under a regulated environment in that it helped to keep rates down and relatively stable. Apart from the *stranded asset* debate that will undoubtedly rage here, the development of new generation technologies, fuel sources, control systems, etc. has changed the dynamics dramatically. Industrial cogeneration, waste-to-energy, small scale hydro, micro-generation, wind power generation and other renewable electrical energy sources could offer consumers choice and the potential for a more effective power system operation.

Consumers need a climate in the Atlantic Region that will embrace these new, technologically superior electric power generation options regardless of the potential impact on existing, outdated and less efficient centralized plants. Generation development decisions made in the past for reasons that were relevant in the past should not now restrict or impede decision-making that is more relevant for today.

**The only threat posed by small scale, distributed generation is not having it at all.**

- ***Energy Pricing and Pricing Signals***

Along with choice, consumers will undoubtedly face ever more complex energy purchase rates. Consumers may be able to purchase energy from more than one service provider and at different times of the day or year. Rate complexity will also likely introduce different levels of consumer risk. Understanding the risks associated with each rate and the vulnerability to any price volatility will ultimately be the sole responsibility of the consumer. Only *informed* consumers can reasonably make such decisions. It is therefore absolutely essential that consumers fully understand the electricity marketplace, what the price drivers are, and how risk can be mitigated.

For industrial and commercial power consumers, in particular, energy price signaling can be as important as the price of energy itself. Making long-term strategic decisions in a competitive marketplace is difficult at the best of times. Compounding this complex process with future energy pricing uncertainty, consumers are at risk of making uninformed business decisions. This would not bode well for enhancing the competitive advantage of the Atlantic Region.

**There are no certainties in business; however, the introduction of energy price volatility or mixed price signaling would not be in the best interest of the economy of the Region.**

- ***Service Provider Relationship***



---

The relationship between a consumer and their electric service provider is arguably one of the most complex and important business relationships a consumer can have. Old paradigms need to be replaced with new paradigms.

Service providers must be prepared to accept that there is not a standard response that will satisfy the needs of all consumers. If a particular business sector is struggling in a highly competitive marketplace, the electric service provider should be asking: *How can we help you meet competitive challenges?* If a consumer sees an opportunity to grow and expand, the service provider should be asking: *How can we partner with you to realize that growth potential?* If a consumer is challenged with an energy related problem, the service provider should be asking: *When do you want us on site to help you resolve that problem?* If a consumer has incurred unnecessary expense as a result of a supply related problem, the service provider should be asking: *How can we compensate you for your loss?* If a consumer needs help in managing energy consumption and utilizing more efficient technology, the service provider should be asking: *What kind of support do you require from us?*

A consumer/service provider relationship built on this type of foundation is absolutely essential if the Region is to enjoy continued economic growth and development.

**Strong relationships are not built by throwing obstacles in the way of customer needs.**

- ***Responsive Solutions For Diverse Energy Needs***

Electrical energy consumers are more sophisticated today than at any time in history. Consumers' energy needs are also more diverse and complex than at any time in history. This diversity and complexity requires creative solutions, solutions that up until this point in time have not been available.

The bundling of energy sources, electrical load aggregation, Time-of-Use energy purchase rates, to name only a few are options that either by themselves or as part of integrated package may offer the most optimal solution for the consumer's energy needs. Energy suppliers will need to work together. Someone will need to take the bold step to bring otherwise competitive service providers together to offer a solution for consumer-specific need.

Is this viable? In my view it is not only viable; but also absolutely essential.

**The common good of the Region demands that energy does not become a divisive factor in an otherwise healthy and robust economy.**

These are only a few of the issues and concerns that have significant relevancy for electrical energy consumers as we move forward into a new electricity marketplace.

***Toward A Consumer Driven Electricity Marketplace***

In my view, we are at a crossroads in the Atlantic Region. One direction takes us to an electrical energy marketplace that is vibrant, offers flexible and creative energy solutions, is responsive to consumer needs and above all else, one that is driven by and for

---

consumers. This marketplace will help generate sustainable economic development for the Region. The other direction, at best, simply maintains the status quo and, at worst, seriously impedes the Region's ability to continue to grow and prosper. In either event, we lose as a Region.

The choice of direction would appear obvious. What isn't so obvious, is the means to reach the desired destination. Each of us has an essential role to play. As consumers we have both a responsibility and an obligation to actively participate in the development of strategies, policies, legislation, regulations, etc that will define a restructured electrical industry. Whether consumers choose to participate individually or through consolidated and well-informed advocacy organizations will likely be a function of their level of understanding of the issues at hand. Policy makers, Legislators and Regulators must be willing to engage in meaningful dialogue with consumers. Service providers must listen to the needs of consumers and be responsive to those needs.

In conclusion, one fact is self-evident. If there was ever a time for all of the stakeholders in the electric industry of the Region to cooperatively work together and seek solutions for the common good for the Region, it is now. Vested interests and interests from outside the Region must be carefully weighed against the common good of the Region and a desire to strengthen the economy of the Region. If we don't, the penalty we pay may be too high. Let's not let the opportunity slip from our grasp.

Thank you and good afternoon.