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# 2017 North American Electric Vehicle Charging Competitive Strategy Innovation and Leadership Award

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BEST  
*2017* PRACTICES  
AWARD

NORTH AMERICAN ELECTRIC VEHICLE  
CHARGING COMPETITIVE STRATEGY  
INNOVATION AND LEADERSHIP AWARD

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## Background and Company Performance

### Industry Challenges

The popularity of electric vehicles (EVs) has increased worldwide driven by factors such as the hybridization of powertrains as well as stringent emissions norms increasingly imposed by governments across countries and regions. Currently, China leads the EV market accounting for over 43% of total sales followed by Europe and North America. In 2016, over 770,000 EVs were sold globally, which is likely to reach between 950,000 and 1 million by the end of 2017.

As the global EV market grows the global EV charging market must accelerate to keep pace. Yet a number of challenges prevail, such as high cost of EV charging equipment, long charging times, the dearth of plug and connector standardization, along with the lack of a fixed business model to operate a charging network. Cumulatively, these issues represent a sizable challenge hindering industry growth. Even though a global standard has been approved for EV charging (the combined charging system), alternate charging terminologies do exist due to different original equipment manufacturer (OEM) groups and their distinct charging technologies.

In North America, electric vehicle charging infrastructure operators are now focusing on establishing networks that will be applicable for all types of market segments, which include public charging and private charging, and offer compatible plugs for electric vehicles traveling across the region.

### *Strategy Innovation and Customer Impact*

#### **Strategy Effectiveness**

AddÉnergie Technologies (AddÉnergie) is a leader in electric vehicle smart charging stations in Canada that develops, manufactures, and operates charging stations for all segments including the public sector, employers, residential/multi-residential, and fleets. Frost & Sullivan research finds that the company's foresight led it to position itself as a one-stop-shop for providing both infrastructure solutions and acting as a software service provider by manufacturing charging stations, operating the charging network, and delivering software solutions that fulfill all market requirements. Consequently, it is very easy for AddÉnergie to establish partnerships with OEMs and network operators in a move to secure all types of solutions available from them, thus allowing the company to reach greater heights than its competitors.

AddÉnergie's balanced portfolio of EV charging solutions empowers it to surpass its market competitors by focusing on developing, manufacturing, supplying, installing, and operating the network efficiently. Only a handful of companies currently perform all these activities autonomously, which makes AddÉnergie highly competitive in the market. In addition, it provides infrastructure for Electric Circuit and FLO, which are the largest networks in Canada.

## Strategy Execution

AddÉnergie's end-to-end solutions serve the public sector, employers, residential/multi-residential, fleets, and various other applications. As a network operator, the company offers three options: Electric Circuit, FLO, and create-your-own network. Electric Circuit ([www.theelectriccircuit.com](http://www.theelectriccircuit.com)) is the first EV charging station network in Canada, which was started in 2012. The network includes close to 1,500 charging stations, a mix of level 2 (240 volts) and DC (400 volts) fast charging stations. The FLO network ([www.flo.ca](http://www.flo.ca)), AddÉnergie's subsidiary, plays a vital role in Canada's EV charging industry as it operates over 6,000 charging stations that can be managed remotely with the help of AddÉnergie, where 3,000 are commercial and 3,000 are residential charging stations. Frost & Sullivan appreciates AddÉnergie's unique strategy of having individuals create their own networks and become owner of them. This allows individuals to generate revenue and to position themselves in a fast-growing market. AddÉnergie supports the individual at every possible step to set up a robust EV charging infrastructure. Ultimately, this turnkey create-your-own solution offered by the company represents the best practice among other strategies of its competitors.

## Competitive Differentiation

AddÉnergie has strategically positioned itself as a one-stop-shop competitor fit to manufacture, install, operate, and run a network of robust and reliable EV charging stations. The company provides three options as a network operator; they are Electric Circuit, FLO, and create-your-own network all complemented by the best customer services in the market. With all these facilities and solutions, especially the create-your-own network option, the company prevails over its market competitors.

Moreover, AddÉnergie announced in June 2017 that it became the official supplier and operator of a third major charging network, the eCharge Network ([www.echargenetwork.com](http://www.echargenetwork.com)) by strengthening its position as Canada's leader in electric vehicle charging. Currently, it offers charging stations which are 240 volt that have 7.2 kW power output, and DC charging stations offering 400 volts and 50 kW power outputs, options that represent the perfect market fit for existing models operating on-road. In fact, the charging stations are based on the standards that were formally announced under the respective legislation. In particular, level 2 charging stations are compatible with the SAE J1772 standard and DC fast-charging follows a dual standard, which is combined charging system (CCS-1) and CHAdeMO.

The business strategy is executed by competitive pricing, extended services, and effective business models. AddÉnergie has two types of business models that are used in the operation of its charging network. First, through its own subsidiary FLO, AddÉnergie follows a model where the customer has to pay for the time of charge rather than for the amount of electricity used to ward off the reselling of electricity, which is against regulations set by domestic authorities. The second business model is based on revenue

sharing with the other network operators (Electric Circuit, eCharge Network), which offers station operators the freedom to price their charging services competitively.

### **Price Value**

The charging stations AddÉnergie supplies to various networks are competitively priced at different levels, in Canadian dollars. Level 2 residential charging stations cost between \$1,000 and \$1,300; level 2 public charging stations with dual points vary from \$3,500 to \$6,500; and DC charging stations with dual standards range from \$40,000 to \$45,000, excluding installation costs.

All charging stations are energy efficient thanks to stellar management maintained through a remote server provided by the software and are 10 to 15% cheaper than competitors' offerings. They are also vandal proof, sturdy for harsh weather, non-flammable, and modular at the prices offered. The unique element of reasonable pricing that complements the depth of product line adds to brand equity and the overall consumer experience.

### **Customer Ownership Experience**

AddÉnergie has a team of experts responsible for running the network seamlessly and remaining available around-the-clock every day to assist customers if they face any difficulties. All stations are connected remotely by the company's network centers. On the end-user side, the company established a single card access system that supports interoperability, giving drivers the freedom to charge using any network with a single membership card. Membership offers various advantages. For instance, EV drivers can use a smart phone app to easily identify the nearest available charging station and also notifies them if the charging session is interrupted or completed. Customers from various networks can use the service, and the sophisticated software system will identify the customer and bill one based on the time-of-use charges from the respective network. Frost & Sullivan considers this single card access system a pioneering end-to-end solution provided by AddÉnergie that makes it remain competitive among others in the market.

### **Brand Equity**

AddÉnergie has been successful in securing a number of partnerships through different channels to market, which has led to the recent selection as an official supplier to New Brunswick's public EV charging network, the eCharge Network ([www.echargenetwork.com](http://www.echargenetwork.com)). The company has also been able to secure \$6.7 million in funding from Natural Resources Canada to develop innovative charging technologies and charging services business model. This funding will help AddÉnergie develop a new robust DC fast-charging infrastructure of 100 kW power output and to offer charging station as an Infrastructure as a Service (IaaS) model to make financial decision easier by turning capital expenditures into a more flexible operating expense.

The availability of charging stations throughout Canada has enabled EV drivers to travel coast-to-coast without struggling to find a compatible charging station and dealing with different tariff rates. This convenience has had an incredibly positive impact on the customer experience and is helping AddÉnergie grow at a fast pace compared to its competitors. The company is set to develop the next generation of fast-charging stations for EVs, to offer new business model for charging station owners and serve the wide variety of EV models that will be available in the market in the forthcoming years.

### *Conclusion*

AddÉnergie has been working on major projects in Canada to establish itself firmly in the EV charging industry. It has maintained a leading position and is demonstrating new standards such as the combine charging system (CCS-1), along with various strategic factors that make its network interoperable and seamless to access. Thus, by following an innovative growth strategy, AddÉnergie has become a market leader in managing and deploying charging stations across Canada.

In an industry that is just picking up speed, such as EV charging, pioneering an end-to-end solution is a sure way to help a company establish a firm competitive position. Frost & Sullivan appreciates AddÉnergie's vision to differentiate itself as an end-to-end provider that can develop, manufacture, operate, and run a network of EV charging stations, which makes it a worthy recipient of the 2017 Frost & Sullivan Competitive Strategy Innovation and Leadership Award in the North American Electric Vehicles Market.

## Significance of Competitive Strategy Innovation and Leadership

Any successful approach to achieving top-line growth must (1) take into account what competitors are, and are not, doing; (2) meet customer demand with a comprehensive, value-driven product or service portfolio; and (3) establish a brand that resonates deeply with customers and stands apart from other providers. Companies must succeed in these three areas—brand, demand, and positioning—to achieve best-practice levels in competitive strategy.



## Understanding Competitive Strategy Innovation and Leadership

As discussed above, driving demand, brand strength, and competitive differentiation all play a critical role in delivering unique value to customers. This three-fold focus, however, must ideally be complemented by an equally rigorous focus on Strategy Innovation and Customer Impact.

## Key Benchmarking Criteria

For the Competitive Strategy Innovation and Leadership Award, Frost & Sullivan analysts independently evaluated two key factors—Strategy Innovation and Customer Impact—according to the criteria identified below.

### Strategy Innovation

- Criterion 1: Strategy Effectiveness
- Criterion 2: Strategy Execution
- Criterion 3: Competitive Differentiation
- Criterion 4: Executive Team Alignment
- Criterion 5: Stakeholder Integration

### Customer Impact

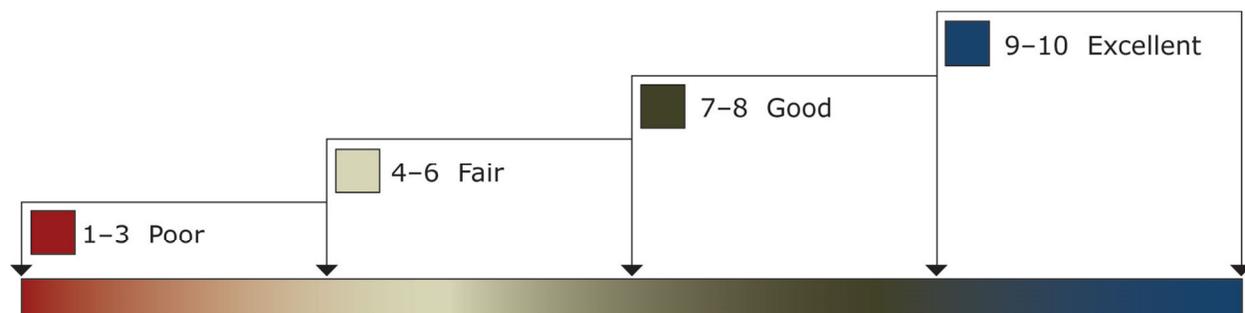
- Criterion 1: Price/Performance Value
- Criterion 2: Customer Purchase Experience
- Criterion 3: Customer Ownership Experience
- Criterion 4: Customer Service Experience
- Criterion 5: Brand Equity

## Best Practices Award Analysis for AddÉnergie

### Decision Support Scorecard

To support its evaluation of best practices across multiple business performance categories, Frost & Sullivan employs a customized Decision Support Scorecard. This tool allows our research and consulting teams to objectively analyze performance, according to the key benchmarking criteria listed in the previous section, and to assign ratings on that basis. The tool follows a 10-point scale that allows for nuances in performance evaluation. Ratings guidelines are illustrated below.

#### RATINGS GUIDELINES



The Decision Support Scorecard is organized by Strategy Innovation and Customer Impact (i.e., these are the overarching categories for all 10 benchmarking criteria; the definitions for each criterion are provided beneath the scorecard.). The research team confirms the veracity of this weighted scorecard through sensitivity analysis, which confirms that small changes to the ratings for a specific criterion do not lead to a significant change in the overall relative rankings of the companies.

The results of this analysis are shown below. To remain unbiased and to protect the interests of all organizations reviewed, we have chosen to refer to the other key participants as Competitor 1 and Competitor 2.

<i>Measurement of 1-10 (1 = poor; 10 = excellent)</i>			
<b>Competitive Strategy Innovation and Leadership</b>	Strategy Innovation	Customer Impact	<b>Average Rating</b>
<b>AddÉnergie</b>	<b>8</b>	<b>8</b>	<b>8.0</b>
Competitor 2	7	7	7.0
Competitor 3	7	6	6.5

### *Strategy Innovation*

#### **Criterion 1: Strategy Effectiveness**

Requirement: Strategy effectively balances short-term performance needs with long-term aspirations and vision for the company.

#### **Criterion 2: Strategy Execution**

Requirement: Adoption of best-in-class processes supports the efficient and consistent implementation of business strategy.

#### **Criterion 3: Competitive Differentiation**

Requirement: Unique competitive advantages with regard to solution or product are clearly articulated and well accepted within the industry.

#### **Criterion 4: Executive Team Alignment**

Requirement: The executive team is aligned along the organization’s mission, vision, strategy, and execution.

#### **Criterion 5: Stakeholder Integration**

Requirement: Strategy reflects the needs or circumstances of all industry stakeholders, including competitors, customers, investors, and employees.

### *Customer Impact*

#### **Criterion 1: Price/Performance Value**

Requirement: Products or services offer the best value for the price, compared to similar offerings in the market.

#### **Criterion 2: Customer Purchase Experience**

Requirement: Customers feel they are buying the most optimal solution that addresses both their unique needs and their unique constraints.

#### **Criterion 3: Customer Ownership Experience**

Requirement: Customers are proud to own the company’s product or service and have a positive experience throughout the life of the product or service.

**Criterion 4: Customer Service Experience**

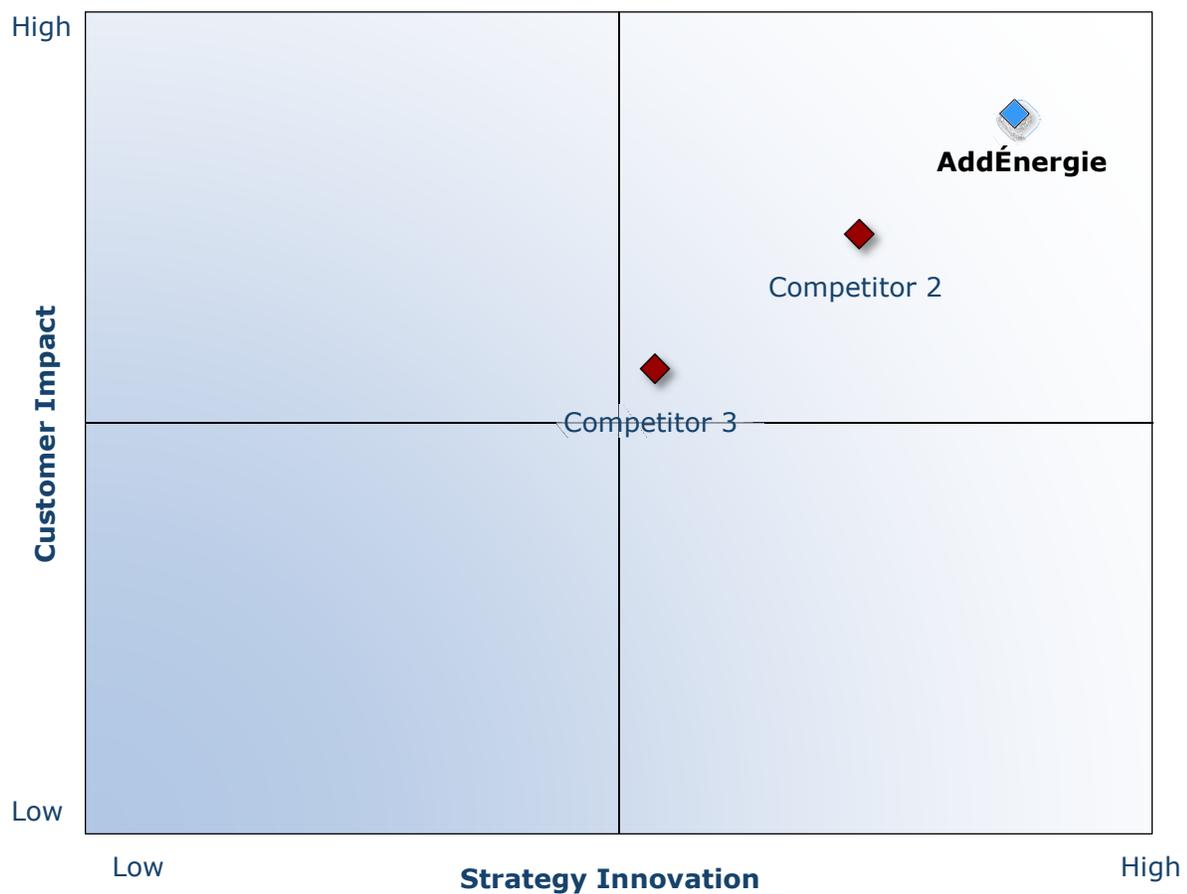
Requirement: Customer service is accessible, fast, stress-free, and of high quality.

**Criterion 5: Brand Equity**

Requirement: Customers have a positive view of the brand and exhibit high brand loyalty.

*Decision Support Matrix*

Once all companies have been evaluated according to the Decision Support Scorecard, analysts then position the candidates on the matrix shown below, enabling them to visualize which companies are truly breakthrough and which ones are not yet operating at best-in-class levels.



## Best Practices Recognition: 10 Steps to Researching, Identifying, and Recognizing Best Practices

Frost & Sullivan analysts follow a 10-step process to evaluate Award candidates and assess their fit with select best practice criteria. The reputation and integrity of the Awards are based on close adherence to this process.

STEP	OBJECTIVE	KEY ACTIVITIES	OUTPUT
1 <b>Monitor, target, and screen</b>	Identify Award recipient candidates from around the globe	<ul style="list-style-type: none"> <li>• Conduct in-depth industry research</li> <li>• Identify emerging sectors</li> <li>• Scan multiple geographies</li> </ul>	Pipeline of candidates who potentially meet all best-practice criteria
2 <b>Perform 360-degree research</b>	Perform comprehensive, 360-degree research on all candidates in the pipeline	<ul style="list-style-type: none"> <li>• Interview thought leaders and industry practitioners</li> <li>• Assess candidates' fit with best-practice criteria</li> <li>• Rank all candidates</li> </ul>	Matrix positioning all candidates' performance relative to one another
3 <b>Invite thought leadership in best practices</b>	Perform in-depth examination of all candidates	<ul style="list-style-type: none"> <li>• Confirm best-practice criteria</li> <li>• Examine eligibility of all candidates</li> <li>• Identify any information gaps</li> </ul>	Detailed profiles of all ranked candidates
4 <b>Initiate research director review</b>	Conduct an unbiased evaluation of all candidate profiles	<ul style="list-style-type: none"> <li>• Brainstorm ranking options</li> <li>• Invite multiple perspectives on candidates' performance</li> <li>• Update candidate profiles</li> </ul>	Final prioritization of all eligible candidates and companion best-practice positioning paper
5 <b>Assemble panel of industry experts</b>	Present findings to an expert panel of industry thought leaders	<ul style="list-style-type: none"> <li>• Share findings</li> <li>• Strengthen cases for candidate eligibility</li> <li>• Prioritize candidates</li> </ul>	Refined list of prioritized Award candidates
6 <b>Conduct global industry review</b>	Build consensus on Award candidates' eligibility	<ul style="list-style-type: none"> <li>• Hold global team meeting to review all candidates</li> <li>• Pressure-test fit with criteria</li> <li>• Confirm inclusion of all eligible candidates</li> </ul>	Final list of eligible Award candidates, representing success stories worldwide
7 <b>Perform quality check</b>	Develop official Award consideration materials	<ul style="list-style-type: none"> <li>• Perform final performance benchmarking activities</li> <li>• Write nominations</li> <li>• Perform quality review</li> </ul>	High-quality, accurate, and creative presentation of nominees' successes
8 <b>Reconnect with panel of industry experts</b>	Finalize the selection of the best-practice Award recipient	<ul style="list-style-type: none"> <li>• Review analysis with panel</li> <li>• Build consensus</li> <li>• Select recipient</li> </ul>	Decision on which company performs best against all best-practice criteria
9 <b>Communicate recognition</b>	Inform Award recipient of Award recognition	<ul style="list-style-type: none"> <li>• Present Award to the CEO</li> <li>• Inspire the organization for continued success</li> <li>• Celebrate the recipient's performance</li> </ul>	Announcement of Award and plan for how recipient can use the Award to enhance the brand
10 <b>Take strategic action</b>	Upon licensing, company may share Award news with stakeholders and customers	<ul style="list-style-type: none"> <li>• Coordinate media outreach</li> <li>• Design a marketing plan</li> <li>• Assess Award's role in future strategic planning</li> </ul>	Widespread awareness of recipient's Award status among investors, media personnel, and employees

## The Intersection between 360-Degree Research and Best Practices Awards

### Research Methodology

Frost & Sullivan's 360-degree research methodology represents the analytical rigor of our research process. It offers a 360-degree-view of industry challenges, trends, and issues by integrating all 7 of Frost & Sullivan's research methodologies. Too often, companies make important growth decisions based on a narrow understanding of their environment, leading to errors of both omission and commission. Successful growth strategies are founded on a thorough understanding of market, technical, economic, financial, customer, best practices, and demographic analyses. The integration of these research disciplines into the 360-degree research methodology provides an evaluation platform for benchmarking industry participants and for identifying those performing at best-in-class levels.

### 360-DEGREE RESEARCH: SEEING ORDER IN THE CHAOS



## About Frost & Sullivan

Frost & Sullivan, the Growth Partnership Company, enables clients to accelerate growth and achieve best in class positions in growth, innovation and leadership. The company's Growth Partnership Service provides the CEO and the CEO's Growth Team with disciplined research and best practice models to drive the generation, evaluation and implementation of powerful growth strategies. Frost & Sullivan leverages more than 50 years of experience in partnering with Global 1000 companies, emerging businesses and the investment community from 45 offices on six continents. To join our Growth Partnership, please visit <http://www.frost.com>.