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Strategic Marketing Plan to Help Facilitate the Development of the Electric Vehicle Market

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Abstract

The purpose of this document is to present a recommendation on strategic marketing programs that utilities should undertake to stimulate the development of an electric vehicle (EV) market in their respective service areas. Through these programs a utility can demonstrate to their internal employees as well as to external customers their commitment not only to the environment but their support for technology advancement and economic development in their communities. Many utilities are already leading by example as can be seen from the electrification of their own fleet vehicles. With the knowledge gained from that experience a utility can further position themselves as the trusted "Energy Expert" and it allows for the formation of strategic partnerships. With the right policy implementation the utility can not only support the growth of the EV market but it can help to shape it. The utility already has the knowledge of their system and can put in place a program that is cost-effective and lowers the barriers to adoption for this new and improved technology. With utility input into the formation of the market they can also incentivize or persuade EV drivers to charge during off-peak hours when existing infrastructure is underutilized. This helps to maximize the benefits to all ratepayers and the community as a whole.

Keywords: EV market, EVSE, Strategic marketing, EV policy

1 Introduction

As part of our utilities' corporate strategy our vision is to create value for customers, communities and shareholders. By being an active participant in the development of the EV market for our service area we see an added value in that this technology brings about the possibility of better utilizing our existing electric infrastructure and it also allows us to strengthen our customer relationships. It also allows for the creation of valuable partnerships with not only our existing customers but with other stakeholders participating in the EV market.

2 Utility Participation

With the right policy design the utility can support the growth and help to shape the EV market.

2.1 Efficient Use Infrastructure

A major incentive for the utility to participate in this market is the potential opportunities for efficiencies. Measures can be created and implemented by the utility that will incentivize the customer to charge their EVs during off-peak hours. This results in an improved load factor, load smoothing and shaping. Improvement to the operational efficiency of the grid benefits all ratepayers by placing a downward pressure on the rates [1].

2.2 Customer Satisfaction

The topic of EVs provides an opportunity to engage with customers in a way that we, the electric utility industry, has not had the opportunity to do before. It allows us to work with customers in an innovative way and to help customers find solutions for their transportation needs.

3 Role in the EV Market

The utilities role in the EV market is one of an enabler for the commercial development of programs and electric vehicle supply equipment (EVSE). The first step in our process for developing an EV strategy was to determine the barriers to market adoption for this technology. We then needed to determine what our role was in combating these barriers [2].

3.1 EV Charging Infrastructure

The utilities role in the electric vehicle charging infrastructure arena is to help facilitate partnerships between our customers and existing 3rd party EVSE providers. By doing this the utility can encourage growth and further the development of this market. The utility has the knowledge of their infrastructure along with the knowledge of their customers and their customers' needs.

3.2 Energy Advisor

As the "fuel" provider for EVs, electric utilities will play an important role as an ambassador for these plug-in technologies. This will entail providing information and analysis related to the conversion to electric for customers. Many utilities are already leading by example when it comes to electrifying their own fleet. This allows for the capture of data to determine economic and operational benefits. It also allows for the acknowledgement of the challenges due to an electric conversion, which can also be important information to share. By offering assistance to customers in need of help to analyze their own fleets the utility can demonstrate the benefits of converting to electric and help to further spur the EV market.

3.3 Educational Campaign

It is important to participate in an educational campaign that addresses the motivators around adopting electric technology and that addresses the misconceptions that lead to barriers to adoption. It is also important to note that by first starting to educate and engage utility employees around EVs one can create a corporate environment that encourages and generates excitement around EV adoption. Once this occurs employees can then demonstrate to the customers the benefits of EVs and this will spur the market in a much bigger way. When developing an external educational campaign it is important to differentiate customer segments. For example, commuter customers, fleet customers, and transit customers should be engaged with differently.

3.4 Charging Incentives

In order to use EV charging as an opportunity to fully utilize existing power facilitates the utility must incentivize customers to charge during off-peak hours. They do this by offering time of use rates. Research has shown that an EV driver will change their charging behavior if incentivize to do so [3].

4 Measures of Success

Data on EV sales will need to start to be collected to determine if the strategy is effective or if changes need to be made to the implemented strategy. The criteria that will show the effectiveness of the strategy includes:

1. Tracking the number of EVs in the utilities' service area to determine the percentage increase.
2. Survey employees on EV related topics to determine the usefulness of the educational campaign.
3. Track EV specific social media content and number of followers to see if external customers are engaged.

5 Conclusion

At a minimum the utility EV strategy would be to ensure that customers may construct EVSE and the utility can provide the infrastructure to support it. This is an important part of the strategy. In order to truly help support the market an educational component is needed. Utilities must share the knowledge they have obtained by electrifying their own fleets and to share their knowledge and experience within the EV area. Utilities have a vested interest in seeing the EV market succeed and they need to take a proactive approach to ensure that the market is successful. A utilities' level of participation in this market will help to determine the growth rate and ultimately the success and shape of the EV market in their respective service areas.

References

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