

CENTRAL HUDSON BUSINESS PLAN

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Professor Zambito

Bus 100 Sec 122 Group 2

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## Memorandum

**To:** Professor Zambito

**From:** Juliet Costa

Allie Doherty

Ashley Wohlrab

Matthew Kooker

Tawan Scott

**Date:** 12/7/17

**Subject:** Introduction to Business and Management

Business 100

Section 122

Tuesday 5:00 - 6:15 pm and Wednesday 8:00 - 9:15 am

**Assignment:** Central Hudson Gas & Electric Business Plan Outline

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Attached please find the resume which is due on 12/9/17 in BUS 100N Sections 111 112, 113, 114, 115, 116, 117, 118, 119, 120, 121, & 122, Introduction to Business and Management.

The work and writing presented in this resume unless specifically specified in an appropriately cited footnote, endnote or reference note is solely mine/ours.

## **Executive Summary:**

The following business plan provides an outline and analysis of the utility industry as well as the marketing and financials for a proposed new product that Central Hudson Gas & Electric could provide, along with an assessment of the utility industry and its political, economic, social, and technological impacts. Following this is a look at the effect of shifting trends such as competition (Amazon) and an increased demand for clean energy (i.e. solar panels, wind turbines, etc.) have had on the industry and the Central Hudson Gas & Electric firm specifically. Research has found that the client, Central Hudson, maintains a steady consumer base and focuses on reliability as a large part of its image.

All of this compiled information indicates the need for companies such as Central Hudson Gas & Electric to enter a new market in order to sustain themselves; in this case, the proposed new product is an electric car charger and service. The target market would be rather large and consistent of people of driving age within the client's service area. The company would distribute the product, but not produce it, and in the future would hopefully expand further into the production of charging stations with the Central Hudson brand.

It is recommended:

- That Central Hudson Gas & Electric introduce an electric car charger to their CenHub online store;
- that Central Hudson Gas & Electric markets this product as a reliable, environmentally-friendly product

## **Introduction:**

The following paper will go in depth on the specifics of the utility industry and the challenges that companies in that industry will face. This investigation into the industry will lead to the scrutiny of one particular firm within in: Central Hudson Gas & Electric. The strengths and weaknesses of this client will be scrutinized along with the potential of Central Hudson to, without betraying its core values, exhibit adaptability in a time when widespread outcry for renewable energy threatens an industry where natural resources represent the bulk of any service provided. The solution that our group proposed is an electric car charger, portable and permanent depending on the needs of the customer. This product is small but exceedingly relevant considering the threats facing firms such as Central Hudson; it represents change in the right direction for the client, and versatility that not all companies will be able to keep up with.

## **Part One:**

Utility companies have become essential in today's society. With technological advances, these companies are needed now more than ever to provide consumers with adequate services. The NAICS code 221112 applies to utility companies, such as Central Hudson Gas and Electric. When looking into the internal and external influences within utility companies, the minute complexities begin to reveal themselves. When factors such as political, economic, social, or technological are changed or affected, they can have a great influence on the company.

### **Political Factors**

Businesses and politics are closely intertwined. Businesses prefer to keep political laws and regulations out of their operations, but the government has enforced some standards that must be met. Changes in these laws and regulations, or just the mere existence of them, affect a

business. When rules and regulations are updated or changed, and a business does not meet the new requirements, they must quickly find a way to solve this issue and adhere to the changes. Failure to adapt will result in the end of the business. At a base level, just about every United States business faces requirements that protect the health and safety of their workers, as well as protect them from discrimination. This is a rather general political obstacle, but nonetheless almost every industry must jump this hurdle. In most states, OSHA regulations set standards for workplace health and safety. The workplace must be a safe and healthy environment, providing employees with “training, outreach, education and assistance.” Under the General Duty Clause, employers must keep the workplace “free from recognized hazards that are causing or are likely to cause death or serious harm.”<sup>1</sup> The smallest parts of government and politics have an impact on any industry, ensuring everything is run in a safe manner.

Regarding an industry that specializes in gas and electricity, environmental laws are a potential political issue. The U.S. Environmental Protection Agency (EPA) has set regulations to halt environmental damage by businesses and corporations. The Clean Air Act “authorizes EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and public welfare and to regulate emissions of hazardous air pollutants,”<sup>2</sup> preventing companies such as Central Hudson Gas and Electric, or similar businesses from polluting the air while providing service for their customers. On the EPA’s official website, the Clean Water Act is stated to be implemented on basically all corporations in the United States. The Clean Water Act regulates the level and quality of pollutants that can enter any form of water within the United

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<sup>1</sup> “OSHA Law and Regulations,” Occupational Safety and Health Administration, United States Department of Labor, accessed September 27, 2017, <https://www.osha.gov/law-regs.html>

<sup>2</sup> “Summary of the Clean Air Act,” Laws and Regulations, United States Environmental Protection Agency, accessed September 27, 2017, <https://www.epa.gov/laws-regulations/summary-clean-air-act>.

States. It is vital that health, safety, and environmental law requirements be met, especially for a company or companies that involve the use of energy and resources, as these businesses have the potential to put both their employees and those surrounding the area of where they keep their business in danger.

### **Economic Factors**

The profits of companies and firms in the same industry as Central Hudson fluctuate based on the economy. Gas and electricity prices are constantly changing; the economy and the market have a huge impact on how these businesses are run.. The companies themselves also have an impact on the economy as a whole. Presently, companies in the United States are reliant on energy in order to power everyday life. According to International Brotherhood of Electrical Workers (IBEW) international president, Lonnie R. Stephenson, “The electric power industry is a major driver of our economy, providing millions of good jobs in communities across the nation.”<sup>3</sup> IBEW is a labor union based out of Poughkeepsie, New York, providing insight into the economic impact of electricity businesses on the economy and vice versa.

### **Social Factors**

Social trends may appear to be irrelevant when it comes to the energy industry. Oftentimes, when thinking of how social trends impact business, people tend to picture changes in types of popular clothing or food. However, shifting trends still apply, even to gas and electricity, and energy companies in the gas and electricity industry must learn to adjust to changing demographics along with everyone else. Younger generations, such as Millennials, are becoming more environmentally conscious. In an attempt to reduce one’s “carbon footprint”,

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<sup>3</sup>“Energy Industry Study Shows Huge Economic Impact from Top Quality Jobs,” IBEW Media Center, IBEW, accessed September 29, 2017, [http://www.ibew.org/media-center/Articles/17Daily/1708/170802\\_EnergyIndustry](http://www.ibew.org/media-center/Articles/17Daily/1708/170802_EnergyIndustry)

generally defined as the amount of carbon dioxide that one person emits based on their energy usage, younger people have started looking to more eco-friendly alternatives than traditional gas and electricity options. Solar panels are a large example of this, rising in popularity due to supposed long-term cost efficiency and being environmentally friendly. If companies in the same industry as Central Hudson Gas and Electricity wish to maintain their businesses, they must adjust to these rapidly changing preferences. In order to keep a consumer base, these businesses must figure out how to make the appeal of their product greater than the potential benefits of alternative methods.

### **Demographics**

While some businesses will attempt to counter the changes brought on by shifting demographics and consumer demands, other companies will be able to adapt technologically in order to enter a new market. There is a new player in the game when it comes to gas and electricity, or just energy in general: solar energy. Solar energy boasts environmental efficiency as well as, over a period of time, cost-efficiency. They are both a beneficial and renewable source of energy for this specific industry, and while the cost of solar panels can be pretty expensive at first, solar energy, oftentimes manifested as solar panels, can end up saving both consumers and businesses in this industry a lot of money. As the popularity of solar energy rises, the prices decrease, and many hope that in the near future they will be a common source of energy. This new source of energy is a game changer for existing gas and electricity companies. The environment keeps cropping up in discussions related to the industry and Central Hudson, mainly because it is a hot topic at the moment. This has led to new technological advances that threaten companies such as Central Hudson, that provide non-renewable, finite resources as



energy. As the next few years pass, many businesses will have to decide whether or not to jump ship to new, some may say “trendier” energy options such as solar panels or wind turbines, or to remain firm.

In terms of demographics, utility companies are, at this point, considered essential to daily life in the United States. For the vast majority of Americans, electricity and gas is vital to perform basic everyday tasks such as cooking, heating and cooling their homes, and light. If one lives in the United States and is a homeowner with a paying job, it is fairly likely that in one way or another he or she has a need for a utility service. Aside from individual people needing gas and electricity, large businesses and corporations based in cities or more populated areas will need to power their corporations. There is not a large audience that a utility company would not reach; some people choose to live their life off the grid, and sustain themselves through more natural methods that do not require the depletion of finite resources, but those people are in the minority. Furthermore, each utility company has its own customers and localized audiences. Using Central Hudson as an example, they describe themselves as “a regulated transmission and distribution utility serving approximately 302,000 electric customers and 80,000 natural gas customers in a defined service territory of New York State’s Mid-Hudson River Valley.”<sup>4</sup> They are specific to one demographic based on their location. The population within a region that a company or business works in is another important factor to consider when looking at demographics. A utility company would rather target an area with a large population within a smaller region, than a small population over a large region. A large population is convenient and allows a company to reach out to more customers.

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<sup>4</sup> “Facts at a Glance,” Central Hudson, accessed September 28th, 2017, [https://www.cenhud.com/about\\_us/facts](https://www.cenhud.com/about_us/facts)

## **Technological Factors**

Rising environmental concerns, competition with other businesses, increase in self-sufficient homes, and uncertain marketplaces are all threats to a business. With rising environmental concerns, consumers are more careful with the amount of energy they use and the carbon footprint they leave. Consumers try to conserve energy which then lowers their need for a large amount of gas or energy. With the use of self-sufficient energy options such as windmills and solar panels, gas and oil companies are not needed as much and must find other ways to stay relevant and updated.

## **Competitive Forces**

Businesses compete with others in their field. Central Hudson Gas and Electric Company's direct competitors would be National Grid, General Electric, and other utility companies. Their indirect competitor in the field of business is Amazon. Amazon and utility services both offer similar products, but overall Amazon offers more products with a greater diversity and dominates the online shopping world. In order for Central Hudson and companies alike to gain an advantage on Amazon, these companies need to create more efficient user enticing online resources

Within the industry, there are few substitutes for the products these firms offer. The substitutes are solar panels and wind turbines, both of which are a more eco-friendly way to supply power. Both of these substitutes are also way more expensive than using natural gas and electricity. The buyer can acquire services through whichever gas and electric company he or she wants to use. With this being said, some companies within this industry are confined to a

specific area of service, which means some people may not be able to use a specific company within this firm.

### **New Firm Threat**

The barriers to entry in the gas and electricity industry are very high. Usually, electric utility companies operate in their own designated region, meaning that for a new firm to compete, they must incorporate high asset possession, high startup costs, government and environmental regulations, and high working expenses. High startup cost implies that very few companies will even attempt to enter the industry in an area where a firm has already been established. This brings down potential competition from the start. Government regulations also drive down competition as they force companies to comply with environmental regulations, which requires even more capital. Due to these reasons, existing electric utility companies have a tremendous advantage and profit potential.

A new competitor entering the gas and electric industry is unlikely. In each designated region, an individual gas and electric company such as Central Hudson acts as the sole gas and electricity provider for a large portion of the area. In terms of the gas and electricity business as a whole, it is certainly possible for a new firm to rise up and become competition. As mentioned on various occasions, solar energy is becoming increasingly popular, so if a new company were to seize the opportunity to provide solar energy for companies where no one else had the same product then they may be able to edge out a pre-existing gas and electric company. Currently it is rather difficult to enter the oil and gas industry especially, seeing as the prices for these commodities are high, while the demand is no longer as large as it once was. In order to break

into this market any up and coming firms would have to figure out new, unique ways to present themselves to a declining consumer base.

Suppliers do have some influence on the industry. While the individual companies, such as Central Hudson, do not provide the electricity or natural gas themselves, they do receive these products from other companies. Regional companies are mainly responsible for delivering the gas and electricity to the customer. Prices and rates of gas and electricity fluctuate based on the market. In large part the costs and resources of regional companies are dependent upon their suppliers. It is safe to say that suppliers have a large influence on the way that this firm operates. Utility companies have experienced an incredibly rough couple of years. As aforementioned on various occasions, an increase in demand for clean, renewable energy has threatened this market. Companies such as Central Hudson happen to operate in an area where they experience little to no competition, so they have been able to remain relatively stagnant throughout this entire shift. That being said, there is no promise that this uncertain safety will last forever, and the utility industry needs to make some changes as a whole in order to survive. An uncertain marketplace and a rise in environmental concerns leading to a decrease in the need for gas and electricity all pose as a threat to this firm and many others like it. With this threat, however, comes the opportunity for change. While businesses should stick to their values, it is also important for companies and firms to remain somewhat flexible. Companies can look at this shifting market as a chance to form new partnerships, and adapt to the new era of energy. They have the ability to view the changes in the market perhaps before they start to seriously impact the industry itself.

## **Part Two:**

### **Background, Growth, and Mission Statement**

Central Hudson Gas & Electric is a utility company that provides electricity and natural gas to their customers. This company is the main competitor within their location, Dutchess County, New York. In 1900, Thaddeus Beal, William R. Beal and John Wilkie unified the separate gas and electric companies within the Newburgh area. They began with 5,000 customers, then formed and built the Central Hudson Gas & Electric over the next 25 years. Central Hudson has consolidated over 80 independent gas and electric companies into one. Central Hudson's mission statement is:

Central Hudson's mission is to deliver electricity and natural gas to an expanding customer base in a safe, reliable, courteous and affordable manner; to produce growing financial returns for shareholders; to foster a culture that encourages employees to reach their full potential; and to be a good corporate citizen.<sup>5</sup>

Central Hudson works towards making a good environment for their customers, gratification for their employees and profit for their investors. Central Hudson formed Central Hudson Energy Group and Central Hudson Enterprise Cooperation in 2000. Then in 2013, Central Hudson Gas & Electric and Central Hudson Energy Group became part of Fortis Inc's federation of utility companies. Central Hudson Gas & Electric communicates and works toward their mission with their employees to improve the quality of life for their community and customers. Some activities that Central Hudson Gas & Electric has participated in or sponsored within their community include Newburgh Community Cleanup, annual autism walks, I Love My Park Day, and many more.

### **Products and Management Style**

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<sup>5</sup> "A Brief History," Central Hudson, accessed October 15, 2017, [https://www.cenhud.com/about\\_us/history](https://www.cenhud.com/about_us/history)

In terms of product and distribution, Central Hudson is fairly straightforward. Even the name of the firm, Central Hudson Gas & Electric, outlines precisely what they are selling. The Central Hudson website cites their general product and distribution methods quite plainly:

“Central Hudson Gas & Electric Corporation is a regulated transmission and distribution utility serving approximately 302,000 electric customers and 80,000 natural gas customers in a defined service territory of New York State’s Mid-Hudson River Valley. Central Hudson delivers natural gas and electricity in a defined service territory that extends from the suburbs of metropolitan New York City north to the Capital District at Albany”<sup>6</sup>

This explains that they are a company with a specialty in natural gas and electricity that distributes to one specific area near their business. Suppliers provide the company with resources that the firm then distributes to their consumers. Because of this Central Hudson does not attempt to do anything extravagant with their marketing, seeing as they have a very clear direction moving forward. In terms of management style, Central Hudson adheres to their already simplistic style. The management is fairly traditional, with a President and CEO, as well as a board of directors and a committee. According to Barry Perry, Fortis President and C.E.O, “Central Hudson has a long tradition of effective local management that is dedicated to balancing the best interests of customers, shareholders and employees alike,” so their philosophy is one of reliability and stability. Their management appears to be more prevalent than their philosophy, simply because the goals of the firm are not large, and their management style helps to facilitate the philosophy that the company is in accordance with.

### **How the Company Makes Money**

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<sup>6</sup> “Facts at a Glance,” Central Hudson, accessed October 15, 2017, [https://www.cenhud.com/about\\_us/facts](https://www.cenhud.com/about_us/facts)

“Since deregulation, Central Hudson and other utility companies in New York state are generally not permitted to own central station generation.”<sup>7</sup> That being said, Central Hudson acts as a median between the customer and the main power grid. Central Hudson purchases electricity from the power grid and they can set a price based on market fluctuations. Because Central Hudson is the sole electricity provider for the Mid-Hudson River Valley in an era where most families have a constant need or desire for technology, there’s little competition which causes higher profits. Anyone located in Central Hudson’s service zone is forced to purchase electricity through them. In this day in age, electricity has become a necessity, so Central Hudson profits greatly.

### **Critical Success Factors**

The critical success factors for Central Hudson are their markets, services, products, resources, operations, and management. As said before, Central Hudson is designated in the Mid-Hudson River Valley, where they operate without much fear of competitions as they are the sole provider of gas and electricity. Without competition, Central Hudson has free rein as to what they want to achieve within this market as long as they comply with regulations set by the government. They can decide what they want to sell and focus on important tasks that will earn them the most profit while spending less on advertisement as the households of Mid-Hudson River Valley really doesn’t have any other great option for gas and electricity. Central Hudson also have great customer services; their website provides self-service such as bill payment, and billing history and they have a 24/7 hotline for any emergency or questions. Their customer services are reflected through the positive reviews and support they received from various social

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<sup>7</sup> “Rates and Tariffs,” Central Hudson, accessed September 28th, 2017, <https://www.cenhud.com/rates>

media such as their Facebook and Twitter page. Lastly, Central Hudson has their own line of energy-saving products that are offered through their website at affordable price. All these different key factors work together to make Central Hudson as successful as they are today.

### **Competitive Advantage**

Central Hudson is the sole provider of electricity for the Mid-Hudson River Valley, meaning that competition doesn't exist. There is no risk of other companies entering the market in the region, and electricity is considered a necessity for most people. This is an era where electricity has become a necessity, and in this designated region, Central Hudson is the only option concerning the purchase of electricity.

### **SWOT Diagram**

One of the strengths of Central Hudson is that they are a regulated monopoly, meaning no other company can take over electricity and gas for people who own the specific products of central Hudson. Because of this, the government sets prices for the company, and as long as the company charges those government set prices, they will make a profit. Another strength the company has is a good customer service. The company offers a service called white touch, which is where an employee of Central Hudson goes to someone's home, and meets and help explain energy efficiency tips.

Central Hudson has some things it wants to improve on and fix, thus, they have a few weaknesses. The first weakness for them is that they are required to only sell their product to 8 specific counties in New York. This means they can never get new clients or people to do business with outside of these 8 counties. Along with this, Central Hudson also struggles to get customers to engage with them, which is another weakness. Within this weakness comes another



problem or weakness that Central Hudson has, which is that they are not speaking to any specific demographics. This is a major weakness for them, as one of their goals or challenges is to do exactly that. One final weakness that Central Hudson has is that it struggles to compete in the online marketplace with companies like Amazon. Since Amazon can charge usually the cheapest prices, that makes it harder on Central Hudson to sell their product.

SWOT Diagram:

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> <li>• Good customer service</li> <li>• Regulated monopoly, they make profit if they charge what the government tells them to charge</li> </ul>	<ul style="list-style-type: none"> <li>• Limited area of service</li> <li>• Trouble getting customers to engage</li> <li>• Competing with Amazon (online market)</li> </ul>
OPPORTUNITIES	THREATS
<ul style="list-style-type: none"> <li>• New social media advertising</li> <li>• Developing a bigger and less costly goods to sell to customers online</li> </ul>	<ul style="list-style-type: none"> <li>• Going green, solar panels/ wind turbines, would replace need for electricity and gas</li> <li>• Changing demographics, millennials moving away from electricity and gas to more environmentally friendly energy</li> </ul>

### **Part Three:**

#### **Product**

The idea we have chosen to introduce to the new Central Hudson line is an “at-home” charger for electric car batteries. With the growing interest in environmentally-friendly options and technologies coming with the rise of the millennial generation, companies such as Central Hudson should grow and adjust with the times. By producing a charger for electric car batteries, Central Hudson is promoting the use of electric-powered vehicles instead of gasoline-powered vehicles. This, in turn, makes the company more relatable to a younger generation who expresses concern about the growing state of peril in our environment.

By creating this electric battery charger, Central Hudson is providing a product to its customer base that fills a need. As the years go on, electric cars are becoming more of a frequent sight. With their growing purchase of electric-powered vehicles, customers will be looking for a convenient way to charge their vehicles at home - which is where this new product from Central Hudson becomes convenient. The charger would be linked to a person’s personal electric bill, meaning that instead of having a separate bill for vehicular gas and home electric, the customer could now only pay one bill - straight to Central Hudson. While adding vehicle and home costs to one bill may sound expensive at first, anybody who drives an electric car purchased after 2010 may be eligible for a tax rebate of up to \$7,500, so the costs would not be too excessive.<sup>8</sup>

The target demographic for this product would be adults of driving age in the service area of Central Hudson - the Mid-Hudson River Valley. This demographic would be consistent of people over the age of 16 and, most likely, under the age of about 85. The majority demographic of this area is white, with 83% of its residents identifying as Caucasian. Married couples without children are the most common household type, which could be a potential target market for the

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<sup>8</sup> “Federal Tax Credits for Electric and Plug-in Hybrid Cars,” U.S. Department of Energy, accessed October 25, 2017, [www.fueleconomy.gov/feg/taxevb.shtml](http://www.fueleconomy.gov/feg/taxevb.shtml)

Central Hudson electric car charger.<sup>9</sup> In addition, electric cars are not inexpensive, so part of the target market would be from about lower middle class to the upper high class. In addition, it may be beneficial to also consider a target market that is inclusive of individuals with college degrees.

According to Forbes:

Based on calendar-year 2013 sales, the study found that 55 percent of electric vehicle buyers are between 36 and 55 years old and nearly 21 percent have an average household income of \$175,000 or more. By comparison, 45 percent of those driving hybrid-powered models off the lot are 56 years old or older (compared to just 26 percent of new EV owners), with only 12 percent having an annual income of \$175,000 or higher.<sup>10</sup> While all driving age individuals should be included in the target market, young people who earn a sizable amount of money currently make up a large portion of the electric-car demographic currently.

The target market will be interested in our product because it is environmentally-friendly, which is a large concern for people in this day and age. Also, with the growing interest in receiving a federal tax rebate for driving an environmentally-friendly vehicle, consumers may be willing to put their money into making the switch to electric-powered vehicles. This, in turn, would peak their interest in a Central Hudson brand electric car charger.

Our product would fill a gap in the market because of the growing demand for electric car stations. Every year there are more people with electric cars. The market for electric car stations is expected to continue to grow through 2025. As the market grows however, so does competition. The main product that would compete with Central Hudson would be electric car stations offered by other companies. Currently, there is a company called EvGo which has 245

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<sup>9</sup> "Demographics," Mid-Hudson Community Profiles, accessed October 25, 2017, <http://www.mhvcommunityprofiles.org/region/demographics>

<sup>10</sup> "Electric-Car Buyers Younger And Richer Than Hybrid Owners," Forbes, accessed October 26, 2017, [www.forbes.com/sites/jimgorzelany/2014/04/22/electric-car-buyers-younger-and-richer-than-hybrid-owners/#4ea6e2b14fba](http://www.forbes.com/sites/jimgorzelany/2014/04/22/electric-car-buyers-younger-and-richer-than-hybrid-owners/#4ea6e2b14fba)

national networks for fast charging in the US, which is the most of any other company. Along with EvGo many other companies sell this product as the market continues to grow. The other competitor for this product would be gasoline powered cars. People who have cars that run solely on gasoline would have no reason to buy an electric car station. Therefore, it is important to understand the demographics of people who do and do not have a car that can run on electricity, in the area in which Central Hudson provides service.

The electric car station would fit well with the other energy efficient products that are sold online on Central Hudson's store. Additionally, Central Hudson would offer the service to come install this product, which would help with customer engagement. Both the electric car station and the service to install the station would help diversify and add to the other products and services that Central Hudson already offers.

Both the individual product (electric car station) and individual service (installing the electric car station) that Central Hudson would provide are complements to products and services that Central Hudson already sells. Since both the electric car station and service to install it would be something new to Central Hudson, it would open a new market for the company, allowing customers to have more options and potentially more profit. There would also be no competition caused by the new product and service, because neither compete with already existing Central Hudson products and services.

### **Promotion and Campaign**

The largest benefit of the electric car charger is its environmental-friendliness. There is a big difference in the total global warming emissions of gasoline cars and electric cars from manufacturing to disposal. During assembly of both vehicles, similar parts made of raw materials

such as aluminum and steel are used, generating about seven tons of emissions for gasoline cars and eight tons of emissions for electric cars. This is due to the large battery that is used in electric cars, which requires more energy and materials to produce. Though the manufacturing of electric cars produces more emissions, it is a different story when the cars are on the road. With every gallon of gas that is burned through, the use of gasoline cars produces pollution. We also have to keep in mind that more emissions are being produced from the extraction, refining, and transportation of fuel to gas stations. With electric cars, the electricity that it runs on is much cleaner than gasoline, depending on how electricity is made. Central Hudson can provide clean electricity through their electric car charger. By the time both cars are disposed of, gasoline cars will produce around 57 tons of global warming emissions, whereas electric cars produces only 28 tons of emissions. This cuts the total emissions that are produced within a car's lifespan by more than 50 percent, making up for the manufacturing emissions of batteries in just one year ("Cleaner Cars from Cradle to Grave (2015)"). As more renewable sources of electricity are introduced in the future, driving electric will become even cleaner. The electric car charger that Central Hudson can provide is not just a convenience for electric car users, but a statement that promotes environmental-friendliness.

As new generations start to grow older, they also want that their demands to be heard. One of the demands of young Americans currently is a desire to increase environmental awareness. According to a Gallup poll, "In a March 6-9 Gallup Poll Social Series survey on the environment, Americans said the environment is a priority over economic growth by a 50%-to-41% margin."<sup>11</sup> It should become Central Hudson's priority that these concerns are heard

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<sup>11</sup> "Americans Again Pick Environment Over Economic Growth," Gallup News, accessed October 26, 2017, <http://news.gallup.com/poll/168017/americans-again-pick-environment-economic-growth.aspx>

and addressed. Central Hudson is a business that operates in one specific area. Central Hudson's message will be that it wishes to maintain the reliability it has already so strongly associated with its name, while also opening itself up to new ideas. That promised stability is vital to the core of Central Hudson, but in order to branch out and increase benefits for the company, it is equally as important that the firm communicates with all current and incoming customers.

Any marketing campaign for the new product is not likely to clash with Central Hudson's current marketing strategy; in fact, a lot of their current marketing tools will be helpful when it comes to advertising the electric car charger. Promoting the product on social media is one of the first steps Central Hudson can take. The firm already maintains strong Twitter and Facebook accounts. Ensuring that updates with information about the charger are consistently posted leading up to and following when the product is released will help get the news out to a large portion of the community. With that said, not everyone is active on social media, and even then some people may not know that Central Hudson has a Facebook or Twitter. Advertising the firm and the release of the new product on buses, billboards, and various other places is a classic but extremely helpful way to ensure that people are aware of the new service being introduced. It would not be consistent with the firm to do a flashy, over-the-top advertising campaign. Instead the campaign should stick to the reliable and trustworthy message they are trying to send, while remaining straightforward and easy for customers to understand.

## **Price**

When a consumer is looking to buy an electric car charging station there are certain aspects to be considered. These include different amperage (amp) options, location of where the station will be installed, and installation of power-capable outlets. An increased amount of

amperage would result in an increased price. The location of the charging station in relation to the house and the electrical circuits also contribute to the price. The option of having a portable station, if the customer would like to change the charging spot in the future, opens up another option of installing an outlet. For example, a NEMA 14-15 outlet is capable of handling the demand for power. This outlet would be similar to the one used for electrical ovens or clothing dryers.

Central Hudson introducing electric vehicle service equipment opens up the opportunity to sell a product as well as a service. Car charging stations run anywhere from five-hundred dollars to a couple of thousand dollars. A simple portable car charger would be around \$550. As for the location of the outlet within a house, the price would depend on the amount of wiring needed to run from the power box to the car's location. The other option of purchasing and installing a permanent charging station can be anywhere from \$400 to \$700. The potential supplier's if Central Hudson does not produce the chargers themselves include AeroViorment, Siemens Versicharge, JuiceBox Pro, and GE Durastation.

## **Place**

The electrical vehicle service equipment can be sold online on the current CenHub store platform to anywhere in the United States. The service of installation, however, remains within Central Hudson's regions of work. This would be the Catskill Division, Fishkill Division, Poughkeepsie Division, Kingston Division, and Newburgh Division. Central Hudson has the opportunity to partnership with car dealerships that sell electric cars within the area. The electric car charger and installation service will fit in the current distribution channel established for

other CenHub products and services offered through the CenHub store on their website. Their infrastructure is already setup to accommodate the product delivery and installation.

## **Conclusion**

Central Hudson has already established itself as a reliable utility company for the area. Adding an electric car charger to their product list, as well as offering a service to install it, can do nothing but benefit the firm. This product does not diverge too much from anything that the company is originally offering, and sends out a message that Central Hudson Gas and Electric cares about the concerns of their client, and cares about making the world a better place. Electric cars are now becoming more mainstream, and this product exemplifies the fact that Central Hudson is willing to keep up with current times and compete with other energy companies without betraying the core of what the firm offers. The new product would represent a step in a new direction for the firm.

## **Part Four:**

### **Financials**

Producing and selling electric car charging stations allows for flexibility in costs due to varying amperages, adaptors, and the many options that come with buying an appliance. In terms of production, Central Hudson will be distributing the product, while another company manufactures it. This is in order to reduce costs; the price of dedicating time, employees, and resources towards physically making the chargers is far greater than the price of simply working with another company in order to sell the chargers. We will be selling the chargers for different amounts depending on the interests of the customers. The portable chargers will cost around \$200 to \$300, while the permanent chargers will cost around \$400 to \$900, both depending on



the features chosen. The service of installing the permanent charger, optional for the buyer, will also incur a cost of around \$65- \$85 per hour. The charger will be sold largely in the state of New York, with a focus on the Hudson Valley region. The service of installation, however, will remain within the company's main region of work. Central Hudson will initially produce 400 chargers (200 permanent and 200 portable), with an expectation to sell around 300 in the first year. The hope is that in the second year we will sell 375 chargers, and that as the years increase, so will the number of chargers sold. As the number of electric cars owned within New York rises, Central Hudson hopes to sell 475 chargers in its third year, 600 in its fourth, and 750 in its fifth.

## Product

The appliance being introduced to Central Hudson is an electric car charging station. With more people going green and purchasing electric or hybrid cars, the demand for a convenient way to charge a car at home increases. The number of electric cars owned within New York has heightened over the past couple of years as seen in the chart below:



Central Hudson is entering the retail market with this product. The firm will largely be serving homeowners who own electric cars. These homeowners will largely be upper middle to upper upper class citizens, taking into consideration the costs of buying an electric car in the first place. There will also be a market commercially with other businesses. Central Hudson will be working with other companies to create this product, making it one of interest to them. The last market

Central Hudson has is with consumers who are not current customers, but may be customers in the future. Hopefully with a strong marketing strategy Central Hudson will be able to pull those consumers in. Considering we plan to advertise around the area with posters and notices, it is likely that Central Hudson will be able to attract some new customers.

It is important to highlight the interest Central Hudson has in this product. Consumers are demanding more businesses to go green, and Central Hudson would be taking a step towards that with this charger. It is in the interest of Central Hudson to listen to the concerns of the average consumer. This is a large potential market for them, and it is important that we emphasize the strongest attributes of Central Hudson in order to convince consumers to buy from the firm. This can be done through strong advertising and marketing, but also hopefully through some minor changes in the company itself. Central Hudson has rather weak customer support, so some internal work in order to improve upon that weakness would show customers that Central Hudson is genuinely interested in changing for the better and is investing time in listening to what the customer has to say.

### **Competition**

A future competitor within the area is Con Edison. While it would have been ideal for Central Hudson to work with Con Edison, ConEd goes up to Woodbury, which is where Central Hudson starts, and Cornwall is the southernmost town in NY where CH provides electricity, still far from the location in Woodbury where Con Edison begins. Con Edison is currently selling car charging stations whose amperage ranges from 16-48 amps. The price of Con Edison's appliances are \$379- \$1,750.

Another major competitor of Central Hudson in the market of electric car chargers is Amazon. Due to Amazon Prime and the convenience of being able to order an item and receive it in two days, Central Hudson could have issues getting customers to buy from them specifically. Amazon offers decent prices and the factor of knowing that the product you are ordering will work the way it's supposed to when it arrives at your door. Amazon also sells both portable and at home car chargers, making it easier for the customer to just order from the competitor of Central Hudson- simply due to convenience and the reliability of Amazon.

In the future, Central Hudson plans to have public charging stations and partnering with local car dealerships to be recommended to customers buying an electric or hybrid car. Assuming Central Hudson experiences a positive experience with the sales of their electric chargers, we hope to introduce the next level of electric car charging services. If possible we hope to eventually set up Central Hudson charging stations, such as the ones that major car companies have in various areas. Some companies have electric charging stations set up in a limited amount of spaces in parking lots. This would be a good start for a company such as Central Hudson; first, we can introduce a few electric car charging stations in the areas closest to the firm. After some time, hopefully the number of parking lots with Central Hudson charging stations will increase until they are statewide. That way anyone from out-of-state or a potential customer who has never dealt with Central Hudson can still use our product and give money to the firm. The ideal situation is that this will also help draw in more customers as a form of advertising, with the charging stations branded with Central Hudson Gas & Electric's name.

Partnering with local car dealerships opens up the opportunity to make more connections with future customers. When buying a car, owners will be asking the car dealers questions about

their car such as how the car works, what features come with the car, and much more. A very important question could be asked is who do they recommend to get a charging station from. This is the perfect opportunity for Central Hudson to be endorsed. New buyers of electric and hybrid cars within New York are potential clients for Central Hudson. Working closely with car dealerships who do not themselves sell electric car chargers but who have an interest in adding more of an environmentally-friendly association with their name would be a perfect opportunity for Central Hudson, as this opens the firm up to a whole new potential base of consumers.

### **Conclusion:**

As electric cars grow in popularity with the current move towards technological advancement within the industry, Central Hudson's portable and permanent electric cars charging ports will change the way individuals travel. Currently, there is no sole provider of this product within the Hudson Valley area; with the current state of dominance that Central Hudson has in this location, now is the time to take advantage of the future of electric cars and establish this new market. Customers of our products are ensured of the benefits that this product provides as we serve the people locally, making it extremely accessible for all individuals. The firm's promised reliability will also assure customers that the product is not likely to be fallible. We offer accessibility from installing the product to troubleshooting. Our product doesn't only provide convenience for the customers, but it also represents the positive future of environmental sustainability that the world strives for. And with the bright future of electric cars, we firmly believe that this is the right step for us to take in support of the imminent change in the car industry.

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## Bibliography

Central Hudson. "Facts at a Glance." Central Hudson. Accessed September 28th, 2017.

[https://www.cenhud.com/about\\_us/facts](https://www.cenhud.com/about_us/facts).

Central Hudson. "Rates and Tariffs." Central Hudson. Accessed September 27, 2017.

<https://www.cenhud.com/rates>.

IBEW. "Energy Industry Study Shows Huge Economic Impact from Top Quality Jobs."

IBEW Media Center. IBEW. Accessed September 29, 2017.

[http://www.ibew.org/media-center/Articles/17Daily/1708/170802\\_EnergyIndustry](http://www.ibew.org/media-center/Articles/17Daily/1708/170802_EnergyIndustry)

Mid-Hudson Valley Community Profiles. "A Portrait of our Region." Mid-Hudson Valley

Community Profiles. Accessed September 28, 2017.

<http://www.mhvcommunityprofiles.org/region/demographics>.

Occupational Safety and Health Administration. "OSHA Law and Regulations."

Occupational Safety and Health Administration. United States Department of Labor. Accessed September 27, 2017.

<https://www.osha.gov/law-regs.html>.

United States Environmental Protection Agency. "Summary of the Clean Air Act." Laws and Regulations. United States Environmental Protection Agency. Accessed September 27, 2017. <https://www.epa.gov/laws-regulations/summary-clean-air-act>.

Central Hudson. "A Brief History." Central Hudson. Accessed October 15th, 2017.

[https://www.cenhud.com/about\\_us/history](https://www.cenhud.com/about_us/history)

Central Hudson. "Facts at a Glance." Central Hudson. Accessed October 14th, 2017.

[https://www.cenhud.com/about\\_us/facts](https://www.cenhud.com/about_us/facts).

Central Hudson. “Rates and Tariffs.” Central Hudson. Accessed October 15th, 2017.

<https://www.cenhud.com/rates>.

Forbes. “Electric-Car Buyers Younger And Richer Than Hybrid Owners.” Forbes.

Accessed October 26, 2017.

[www.forbes.com/sites/jimgorzelay/2014/04/22/electric-car-buyers-younger-and-richer-than-hybrid-owners/#4ea6e2b14fba](http://www.forbes.com/sites/jimgorzelay/2014/04/22/electric-car-buyers-younger-and-richer-than-hybrid-owners/#4ea6e2b14fba)

Gallup. “Americans Again Pick Environment Over Economic Growth.” Gallup News.

Accessed October 26, 2017.

<http://news.gallup.com/poll/168017/americans-again-pick-environment-economic-growth.aspx>.

Mid-Hudson Valley Region Community Profiles. “A Brief History.” Mid-Hudson Valley Region Community Profiles. Accessed October 25, 2017.

[www.mhvcommunityprofiles.org/region/demographics](http://www.mhvcommunityprofiles.org/region/demographics).

Plug In Cars. “Buying Your First Home EV Charger.” Plug In Cars. Accessed October 14, 2017. [www.plugincars.com/quick-guide-buying-your-first-home-ev-charger-126875.html](http://www.plugincars.com/quick-guide-buying-your-first-home-ev-charger-126875.html).

Union of Concerned Scientists. “Cleaner Cars from Cradle to Grave (2015).” Union of Concerned Scientists. Accessed October 26, 2017.

[www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions](http://www.ucsusa.org/clean-vehicles/electric-vehicles/life-cycle-ev-emissions).

U.S. Department of Energy. “Federal Tax Credits for Electric and Plug-in Hybrid Cars.”

U.S. Department of Energy. Accessed October 25, 2017.

[www.fueleconomy.gov/feg/taxevb.shtml](http://www.fueleconomy.gov/feg/taxevb.shtml).