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School of Professional Studies

Project of RENEW Worcester

Danni Yue | Amy Zhang | Jing Han | Omid Ashrafi | Yiming Xu

Advisor: Mary Piecewicz

December 11 2018

Acknowledgement

After twelve week's hard work, we completed the paper for RENEW Worcester.

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1 Executive Summary

1.1 How the work came about?

After being assigned to this project, we started with collecting background information. Because most of our members did not have any experience about working with non-profit organizations and we did not have sufficient knowledge about renewable energies, the major mission for us was collecting information about Renewable Energy Worcester and renewable energies in the initial stage.

And then we had several meetings with our clients, which helps us to be clearer about their goals and our mission.

In order to meet client's needs, we did a SWOT analyze on non-profit and for-profit organizations, compared with same kind of lobbying groups and researched into other renewable energy community projects.

Based on the analyze before, we made our recommendation.

1.2 Final Recommendation

Based on the client needs and current situation, we recommend our client to register for 501(c)(3) organization. So that they can exempt from federal income taxes and reach the goal of both earning revenue and horizontal structure. Also, we recommend Renewable Energy Worcester to add staffs such as grand-writer, HR, accountant and build relationships with consultant for legal consulting.

1.3 How it was conducted

For the team flow goes smoothly, we decided to choose Amy as team leader at first meeting. With the project went on, we found Danni is very organizational and effective in planning. So in the next few weeks, Amy decided on the content for members

to finish, Danni divided the goal into different parts and assigned it to the members through emails. Each member finished their part on time and submitted it online folder. We read everyone's post and discussed questions through meetings.

1.4 A summary of findings

After doing the project, we learned much information about the construction process of non-profit and for-profit organizations and renewable energies. We found the position of an organization is paramount because it determines the organization's future plans and if they can achieve them effectively. Also, we should pay more attention to help non-profit organizations cause renewable energies truly benefit our community and make the world a better place.

2 Introduction

2.1 Introduction

The client for this capstone project is RENEW Worcester which is a fledgling solar power project whose main goals are to bring renewable energy in the form of solar power into local, primarily low-income communities and are committed to the mission of making the transition off of fossil fuels to clean, renewable power.

Based in Worcester, Massachusetts, they are a local chapter of Co-op Power which is a consumer-owned sustainable energy cooperative (co-op) made up of numerous different local chapters all over the New England area as well as the state of New York.

The problem that we will attempt to address is to determine what kind of organization RENEW should become: non-profit or for-profit, while taking into consideration that our recommendation should be in line with what would best be suited for their goals and mission.

The purpose of this project is to provide research into the solar power industry – with special focus on the solar industry in Massachusetts – as well as provide detailed information on the different types of non-profit and for-profit organizations. We will then, based on this research, develop a recommendation for the client and suggest which type or organization they should become as well as provide insight as to what changes they should make internally to their organization and possible sources of income available to them.

The significance of this capstone project lies in the fact that it comes at a precarious time, not just for the solar industry, but for the industry of renewables as a whole. Due to the rapidly changing political climate, it has become more difficult than ever to get into the solar sector and as of this writing, the current administration has

indicated that they have further plans to restrict the development and viability of renewables.

In the following chapters, we will be going over the literature review, after which we will be framing the issue by providing a background of the industry (both nationally and in Massachusetts) as well as the legislations that impact solar power, followed by research and analyses, and lastly, we will be giving our recommendation followed by a summary and the final conclusion.

2.2 The renewable energy industry in the US

Renewable energies in the United States is a burgeoning industry, particularly along the West Coast, and accounts for approximately 12.2% of total energy consumption in the country (Wikipedia, 2017) of which the largest portion comes from hydroelectric energy. Solar-produced power accounts for 6% of all renewable energy output with many of the largest power plants being based in the state of California. As of 2016, renewable energy accounted for approximately 17% of total electricity sales with solar and wind making up 8% and the rest coming from hydroelectric and geothermal power (The Natural Resources Defense Council, 2017). In 2011, renewable energies contributed more than nuclear energy to total energy production in the US, reflecting the commitment of then President Barack Obama to the development of renewable energy projects by the government.

In the US, the states currently responsible for producing the most electricity via renewables are: Washington, California, Texas, Oregon, and New York with hydroelectric power on the decline and wind energy seeing a steady rise from 2007 onwards and solar seeing a slight increase from 2013. As of 2016, the most popular forms

of solar energy are from thermal systems and photovoltaics which convert energy from the sun via the photovoltaic effect. The largest solar farms in the US are Solar Star, The Desert Sunlight Solar Farm, The Topaz Solar Farm, as well as The Blythe Solar Power Project, all based in California (Wikipedia, 2017).

In 2016, the electricity sector accounted for 60% of total infrastructure investment with 65% of those investments being spent on renewable energy projects which resulted in the doubling of solar installations in the US households from 2015 to 2016. In addition, there are many corporate initiatives such as the RE100 which is a collaborative effort by a number of influential corporations on the Fortune 500 list that are committed to working towards a renewable, sustainable future (RE100, n.d.).

2.3 Legislation

There are various federally sponsored renewable energy research organizations, of which the largest are the Sandia National Laboratories and the National Renewable Energy Laboratory which mainly fund solar energy research initiatives and as of 2013, government funding for renewable energy totaled more than \$12 billion with most US states offering incentives in order to promote the adoption of renewables (Wikipedia, 2017).

There are several important legislations that have been passed in the last few years that have a direct impact on solar energy. For instance, a cornerstone of energy policy in the US is the Energy Policy Act of 2005 which requires that all public electric utilities put in place net metering. Another important policy is the American Recovery and Reinvestment Act of 2009 which provided upwards of \$70 billion of spending and tax credits for renewable energy and transportation initiatives. Other important acts

include the Energy Independence and Security Act of 2007, and the Emergency Economic Stabilization Act of 2008 (Wikipedia, 2017).

In addition, there are several tax incentives available to renewable industries such as the Production Tax Credit which reduces the federal income tax of qualifying owners of renewables projects based on electrical output of those facilities that are grid-connected. Another incentive is the Investment Tax Credit which reduces federal income tax for owners based on dollars of capital investment in renewable initiatives. As well as the Advanced Energy Manufacturing Tax Credit which awards tax credits to new or modified manufacturers who participate in the development of clean energy.

The Renewable Portfolio Standard in the US is a mandate that requires electricity providers to supply their customers a minimum amount of power from renewables and as of 2010, has been adopted in 31 states. In addition, there are subsidies available to consumers who purchase hybrid vehicles as well as to homeowners who install energy efficient equipment and solar systems which can receive up to 30% tax credit (Wikipedia, 2017).

2.4 Renewables and the administration

Under the current Trump administration, the head of the Department of Energy (USDOE) is Rick Perry who is a vocal proponent of traditional methods of energy such as coal and has proposed that coal and nuclear power plants be subsidized by taxpayers in an effort to save these industries from the growth of renewables. The president himself has on numerous occasions, expressed his desire to bring back coal jobs and to renew the coal industry and in the past year has issued executive orders which have: disbanded the

Working Group on the Social Cost of Carbon, suspended the Clean Power Plan, and lifted a moratorium on leasing federal land for coal mining.

In addition, according to their 2018 budget, the administration plans on slashing funding for the Office of Energy Efficiency and Renewable Energy by up to 70% as well as indicating that they plan to impose tariffs on the import of solar photovoltaics by up to 35%.

3 Solar background

The gate for the future human being life is on solar power, each day our need to energy is increasing but the supply of fossil fuel will finish and they bring pollution, climate change and health issue for earth and humans so we have to go through renewable energy and one of the best of them is solar

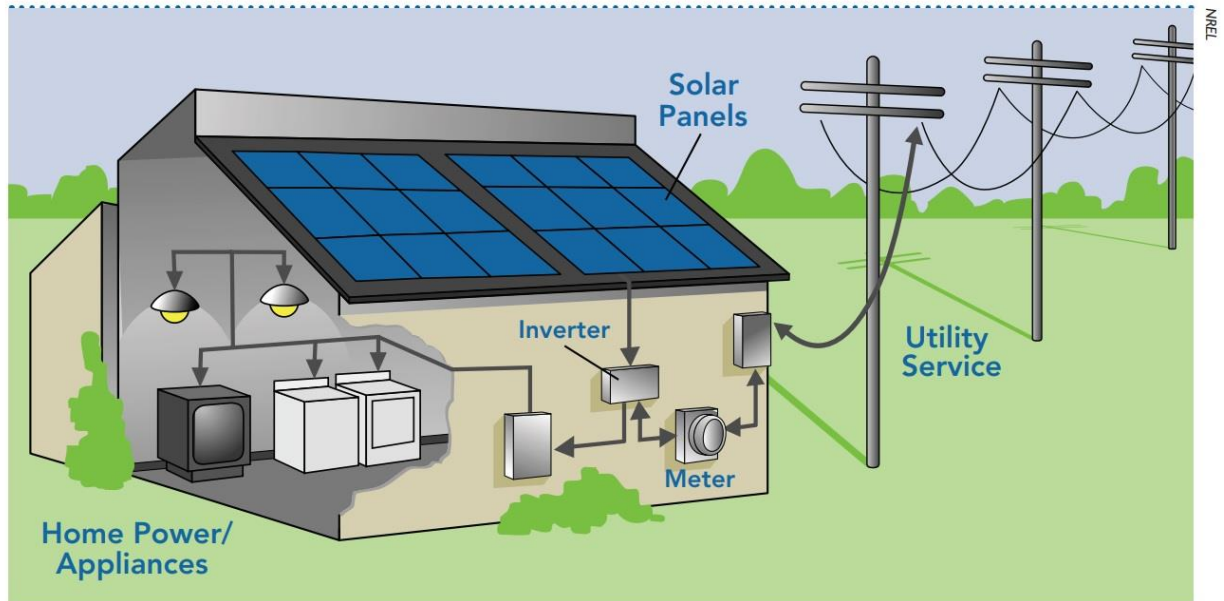
Fortunately, solar power is already available for home owner to use the power of sun in everyday life, not only it is convenience unique facility but also the cost cutting is fabulous, all this benefits are happening while we are of helping the environment by reducing the carbon dioxide.

3.1.1 How solar panel work

Installing the solar panel on a roof is a common way for homeowner to utilizing the solar energy by generating the electricity while the sun's photons are collected when it hit the solar panel, it creates a direct current (DC) electric field, an inverter converts direct current (DC) to alternating current (AC) so that the power can be used by appliances and home systems. If the electricity generated by solar panel are more than current using it could be exported to the electrical grid or stored in batteries and in a

reverse situation when the power is not enough it could pull stored power from batteries.

Solar Electric System Components



Picture from: Massachusetts residential guide to solar electricity article

3.1.2 The impact of solar in human life

Maybe sun just remind people when it's gotten hot but in fact the sun is the power for human tomorrow life style. Generally during the day on sunny location approximately average of 5.5 hours' sunlight would be received and for cloudy area it changes to 2.5 hours per day, but even in cloudy weather the solar panel could produce energy, it reduce to 10% to 20% of the sunny amount and with combine of solar system via battery it would be provide electricity even on night and dark time. Per each square meter of the Earth's surface, the sun gives off about 1,000 watts of energy. (SolarResourceGuide.org 2017) On some disasters situation when the grids fail with solar system homes could keep on power during all the days, even weeks out of electricity grid.

3.1.3 The impact of solar on the earth

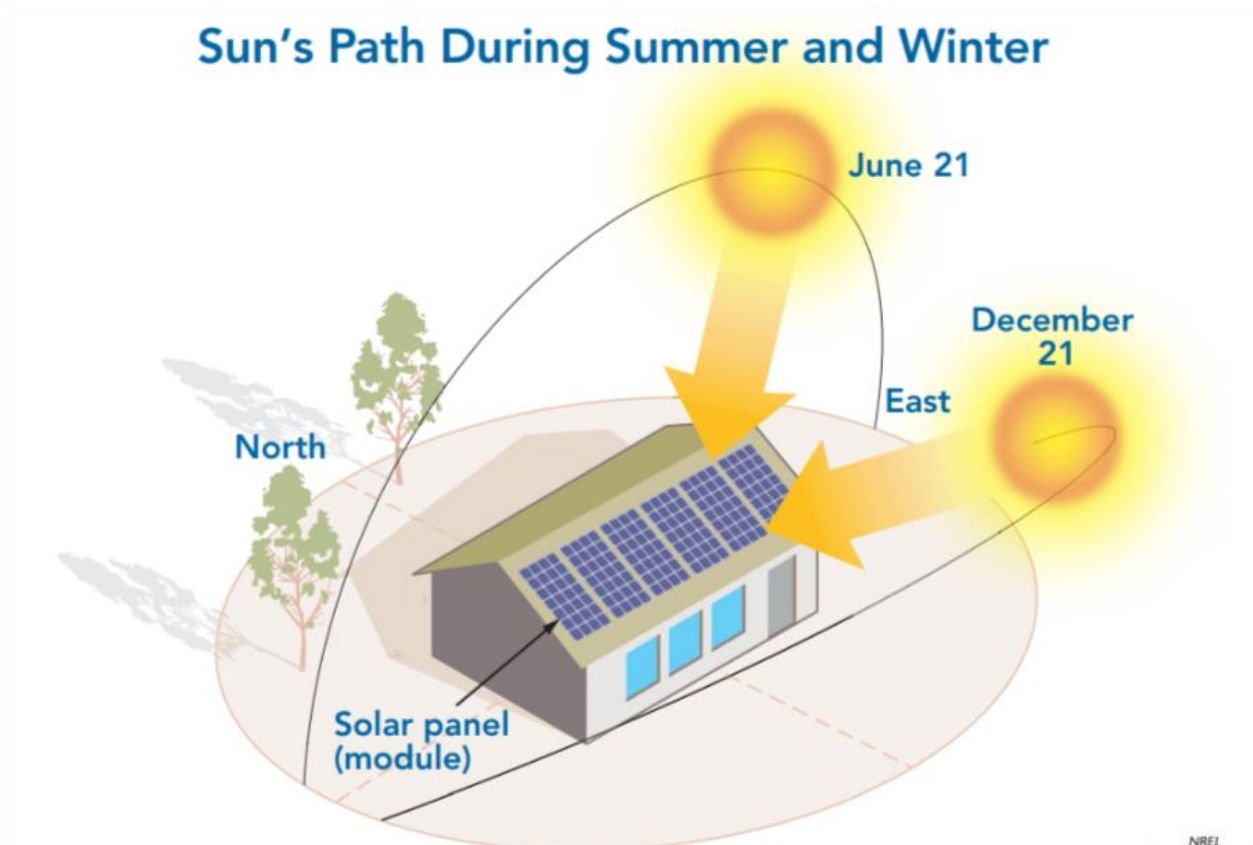
The earth resource may seem enormous but in fact it will finish one day and we cannot make it for example oil but solar power is a renewable resource and it can be used again and again we just need to harness it

Greenhouse effect is one of the human concern and it causes the climate change, this harmful thing happened because of humans and mostly because the range of CO₂ goes higher than it should be and burning oil and gas is one of the ways which make it happen. This energy generation could be replaced with solar energy and unlike them it has no emissions.

The oil, gas, and coal burning for generating power make an environment polluted and it would be harmful for human health and cause diseases like heart attack or even worse like cancer, by replacing with solar it could be reduced so much

3.2 Why Solar Energy

Because this is the renewable, clean, local and independent which all make it a good alternative replacement for fossil energy, but we may think so if it's good enough to through it how it's growing and the answer is according to Environment America Non-profit Organizations in the last two years' solar power request and over the United States of America has been tripled or in other words it shows in each four minutes an American family/business is going to use solar energy. One of the important factors for increasing demands for solar is the price of it which since 2011 it has been dropped more than 50 percent



Picture from: Massachusetts residential guide to solar electricity article

3.3 Why Massachusetts is important

Massachusetts is cold especially in winter, it brings a stereotype that solar may not be good for this area but according to the Environment Massachusetts organization report on 2014 Massachusetts is one of the top ten solar states for solar. Germany is one of the big consumer and leaders in solar system in the world, indeed Massachusetts have 33 percent more sunshine receive than Germany, this high solar resource and great state policies (in following page will describe more) brings a really good opportunity for Massachusetts in solar market and also could help to cut the cost for people over the state to get control over the energy bills by effective way from a proven solution: solar energy

3.3.1 Efficiency Analyzing

According to the research on Massachusetts clean energy center by name Massachusetts residential guide to solar electricity the average New England household uses 7,536 kWh per year, it could be a little up or down but it's a good measure for Massachusetts residence and energy consumer each of the high or less user. The system metric for this measuring is kilowatts (1,000 watts). Number and size of panel are important in functioning and amount of electricity generation by solar system but as standard Massachusetts residential this amount is equal to 1100 kWh electricity per year for one kilowatt (kW) solar electric system which means that a 7 kW system will produce roughly 7,700 kWh per year and generally the solar system size for home solar system is 7kW and it means the system could produce the whole year use of electricity of New England household's.

3.4 Massachusetts Policy and Approach in Solar Perspective

3.4.1 Financial Analyze

According to Massachusetts State website the agency with name of DOER (Massachusetts Department of Energy Resources) Under the Massachusetts Executive Office of Energy and Environmental Affairs (EEA) release the report by name of "Comparative Regional Economic Impacts of Solar Ownership/Financing Alternatives" (Cadmus, 2013) which analyze the Solar system upon the state and local area through financial perspective for two alternatives approach First homeowner residential scale and Second third-party.

In order to fulfill the state commonwealth's policy Massachusetts Department of Energy Resources (DOER) made a research on impact of different PV ownership and differences in local economic and benefits for two scenarios between direct ownership by

(5kW) solar panel through local support like bank versus using the third-party for installing and maintained.

Under contracts between direct ownership and local installer for design and install a 5kW PV solar system the Massachusetts state consider the bellow facility:

- 30% federal discount for renewable energy tax credit
- Obtain \$1,000 the full Massachusetts personal tax credit
- A home equity or personal loan to the homeowner, equal to 40% of the installed costs of the PV system at a rate of 4%,²
- A long-term loan for 15 years

For second alternative which is third part organization this facility as bank loan would change to 40% of the project cost at a rate of 6%, and loan term would reduce to 6 years.

The cost estimate for this analyze is relies on some consultant agency from state and is below:

Input	Value
Installed Cost	\$22,712
Capacity (kW-DC)	5.0
Direct Ownership Scenario	
State Tax Credit	\$1,000
Federal Tax Credit	\$6,280.00
Bank Loan	\$6,173.00
Equity	\$9,259.00
Total	\$22,712.00
Third-Party Ownership Scenario	
Federal Tax Credit	\$6,280.00
Bank Loan	\$6,814.00
Equity	\$9,618.00
Total	\$22,712.00

Picture from Massachusetts Department of Energy Resources (Cadmus, 2013).

State and federal incentives play a key role in the economics of a solar PV system.

The incentives considered in this analysis are listed in Table below.

	Incentive	Value	Notes
Massachusetts	Personal Income Tax Credit (Direct Ownership Scenario Only)	\$1,000	Maximum allowable credit
	SRECs	\$300	Through Year 10
	RECs	\$25	Years 11 Through 25
Federal	Residential Renewable Energy Tax Credit / Investment Tax Credit	\$6,280	30% of applicable project costs

Picture from Massachusetts Department of Energy Resources (Cadmus, 2013).

SRECs: “DOER consider a \$300 price for solar renewable energy credits

(SRECs) in the models. While selection of the \$300 SREC value is arbitrary, it was used because it lies between the market’s highest and lowest historical prices and results in payback periods of five to seven years. In the direct ownership scenario analysis, it is assumed that the homeowner does not pay federal or state income taxes on the SREC revenues.” (Massachusetts Department of Energy Resources (Cadmus, 2013)).

3.4.2 Risk Analysis

As the responsibility for utility between direct owner and third party is different the risk has been faced differ between two scenarios in following table the DOER research provides the 6 examples of risk for two kind of solar home user under two scenarios let compare the risk between them.

Comparison of Risk Exposure to Homeowners Under Ownership Scenarios

Risk Category / Risk	Example	Direct Ownership Scenario	Third-Party Ownership Scenario
Solar PV Performance ^A			
<i>Equipment failure</i>	Inverter failure	✓	
<i>Lower than expected generation</i>	PV generates only 50% of the expected energy in a year	✓	
Change In Law ^B			
<i>Net metering</i>	Net metering services substantially altered	✓	✓
<i>SRECs</i>	SREC program substantially altered	✓	
Energy & SREC Market			
<i>Grid supplied electricity</i>	Electricity prices drop substantially, thus lower savings on PV energy	✓	✓
<i>SRECs</i>	SREC market oversupplied and prices fall	✓	

^A After expiration of service agreement, which typically lasts five years.

^B Some third-party agreements may have provisions to renegotiate a contract under a change in law.

According to DOER research and MA policy plus Federal support it demonstrates how much the local economic impacts could be important and motivate the owners to involve to the PV program specially locally based company that offers a third-party ownership opportunity to homeowners and purchases equipment locally would have a higher local economic impact than the nationally based company modeled in this analysis.

On the other hands it illustrates the field of investing and contributing on the PV program as a third-part company could be very good move for local company like COOPOWER which approached to this public, environmental service as a none profit organization could have all local and federal support which mentioned so far plus none profit benefits which be describe on following part of this capstone project.

4 Literature Review

Solar thermal technology: relies on producing heat using the sun's energy, operates at high temperatures and is usually used in residential and commercial heating and hot water. Solar thermal technology accounts for most of the energy produced by solar power globally. Solar thermal panels “absorb heat from the sun and transfers it to a liquid such as water or antifreeze, which in turn transfers it to areas that need heating” (Planete Energies, 2015). The most common type are flat-plate collectors which are dark in color to absorb heat from the sun with a layer of thermal insulation under a sheet of glass that produces a greenhouse effect (Planete Energies, 2015).

Photovoltaic technology: directly converts sunlight into electricity using solar cells made of semi-conducting materials via the photovoltaic effect. The photovoltaic effect is based on the principle whereby electric currents are caused when electrons are displaced. In order for this to take place, light particles or photons must excite with the outside of atoms of certain semiconductor elements. When light hits a photovoltaic cell, it is converted into electrical power by a semi-conductor which in photovoltaic solar panels are generally made up of silicones. A single panel is made up of “several cells producing direct current, which is then converted into an alternating current by an inverter” (Planete Energies, 2015). Photovoltaics can be used on a small scale, to provide power to electrical devices while solar thermal technology is more commonly used to heat homes or provide hot water. Photovoltaics can also be used on a larger scale to provide electricity to power grids that power cities – and it is this adaptability which makes the technology so promising as a renewable power source.

In the part of for-profit organizations, to figure out the types of our team have done some research on the internet. There are many different types of entities of for-

profit organizations. The basic six types of for-profit entities, which are Sole proprietorship (SP), Limited partnership (LP), Limited Liability Company (LLC), Corporation (Corp), Subchapter's Corporation(S-Corp). Unlike non-profit organizations, for-profit organizations are aimed at making more money for the owners, shareholder, and the enterprise themselves.

To have a better understanding of the differences between these entities, our team also investigated into some institution that can help you start up a new company. By reading their explanation of the legislative rules of the different entities, we learn that these entities are different in many aspects. They have different rules of tax, different limitation of owners and shareholders, different terms of existence, and so on.

After reading all these papers and websites, our team get more knowledge of the for-profit organizations

For doing the non-profit organizations research, we need to specify the types of non-profit organizations first. We search it online and find two types suits for our client, which are 501(c)(3) and 501(c)(4). The official website of IRS (*International Revenue Service*) is the main resource for us to obtain information about these two types of organizations.

For doing the consensus-based decision making research, first we concentrate on explaining the definition of it. Then we specify the benefits and challenges for using consensus-based decision making and what kind of situation suits for applying this method. At last, we put a chart of the consensus process for showing the precise details. After researching on organizational structures for both for-profits and non-profits and respective legal entities for business formations, we realized that functional structure,

divisional structure, matrix structure, and changing structure are the most commonly adopted organizational structures for for-profit organizations. Encompassing the four applicable structures, corporations and LLCs are mostly commonly formed business entities for for-profit organizations. Regarding non-profit organizations, governance centered structure, administration-centered structure, and programs-centered structure are mostly likely to be favored. 501(c)(3) is the most favorable legal entity for non-profit organizations.

Comparing Renewable Energy Worcester's daily operation and development trajectory with operation and development of more established clean energy initiatives serving regional low-income demographics, SWOT analyses for both non-profit and for-profit formations were conducted.

Based on the client's opinion, we also research on other lobbying groups, such as *Mothers Out Front*. Their official website helps us to explain their structure and mission. Plus, *Mothers Out Front's* member registration process and operating system in M.A. offers us many inspirations.

As for the research into how Renewable Energy Worcester could benefit our community, we examine it from three perspectives: residential perspective, governmental perspective, and for the city's good. We use the data from *USA Data* website and *Massachusetts Energy Profile* to specify the current situation in M.A. and Worcester. With combining the strengths of solar energy, we get the conclusion of how Renewable Energy Worcester can benefit our community.

Generally, the company base on none profit structure need to receive money from funding organization or government grant, about Renewable Energy Worcester as a company initiate their activity we categorize all kind of funding as money receive or service receive. Upon the Renewable Energy Worcester activity around social, energy justice we examine all kind of funding with their cons and pros relatively to them and as a conclusion give the recommendation way to approach.

We also tried to shape the organization structure as a visualization process diagram to demonstrate how all the organization would be connected to each other and also how they could benefit or effect mutually in the either Massachusetts scope or federal scope.

5 Results and Reflection

The basic question of our client is what kind of legal entity they can be. Thus, to answer the question we have done some research. Following are the details.

5.1 Brief introduction of for-profit organization

Unlike non-profit organizations, for-profit organizations aim to make more money. A for-profit organization can be formed to conduct any number of lawful business activities (Carter, 2017). For for-profit organizations, the profits of the organization may be distributed to the owners of the company. Also, they are required to pay taxes on property owned by the company. What's more, donations made to a for-profit organization are not tax deductible for the donor. For assets distribution, for profit organizations can be either privately held or publicly traded. The latter sell stock and must abide by special rules to protect shareholders (Companies incorporated, 2015). Thus, the model of for-profit organizations will be more suitable for entrepreneurs who focus on earning profits (Carter, 2017). To have a better understanding of the functions of for-profit organizations, our team did some research in types of organizations. We find 5 basic types of organizations, which are:

- Sole Proprietorship(SP)
- Limited Partnership(LP)
- Limited Liability Company(LLC)
- Corporation(Corp)
- Subchapter's Corporation (S-Corp)

5.2 Types of for-profit organizations

5.2.1 Sole Proprietorship (SP)

Sole proprietorship, also known as sole trader, is the simplest entity among all the enterprises in the U.S.A. It is a type of enterprise that is owned and run by one natural person and in which there is no legal distinction between the owner and the business entity (Wikipedia, 2017). The advantages of the enterprise are:

1. It does not need an official management frame or structure.
2. It requires little or no cost to build the enterprise
3. It only taxes on the personal income.

At the same time, it also has several disadvantages, which are:

1. It cannot provide law protection to the owner of the enterprise.
2. It is hard to raise funds.

5.2.2 Limited Partnership (LP)

Limited partnership is a partnership where at least one partner has unlimited liability for the LP's debts and one or more partners have limited liability (Wikipedia, 2017). The enterprise needs to register in the state government. The advantage of this enterprise is it is easy to be formed. However, the disadvantage of the organization is also very obvious. First, the owners of the enterprise may face difficulties in dealing with their properties, tax, law, possession, and accounting stuff. Because the enterprise is owned by several people, the owners need to very carefully deal with the contract when they start up the enterprise. If they do not make the contract be clear in aspects such as properties, possessions and management, they will face a great difficulty in running the enterprise. What's worse it may lead them to the serious law problems in the future.

5.2.3 Limited Liability Company (LLC)

Limited liability company a form of business whose owners enjoy limited liability, but which is not a corporation (Wikipedia, 2017). It can be owned by one person or more people (IRS, 2017). In the U.S different states have different requirements about how to build and how to run an LLC. Compared with other kinds of enterprise, LLC is more flexible. Owners or members of an LLC can run it like a corporation. They can use the structure and management system of a corporation to manage an LLC.

Being an LLC can enjoy several advantages. First, the clear rules to run a company. When you register an LLC, the government will ask you to fill out many papers and forms which will lead you to understand how to run the company. Also, because LLC is a very popular form of enterprise, the laws and rules about it are more perfected. Thus, if the owners of LLC come up with any questions, they will be able to search for the help from the state or national law. LLC is also friendly to small-scale enterprises. However, the disadvantage of LLC is that it may require the enterprise to have a standard management frame. For example, the enterprise may need a manager, a CEO, a board of director and so on.

5.2.4 Corporations (Corp)

Corporation is the most common type of enterprise in the U.S. It is a legal entity that is separate and distinct from its owners (Investopedia, 2017). It can sell stocks to the public. And the private properties of the owners are protected by the limited responsibility, which means that if the corporation go bankrupt because of some reasons, the owners of the cooperation do not have to pay all the money they have lost. They only need to pay a limited number of money.

The advantage of a corporation is:

1. The corporation runs independently from the owner.
2. The owner has limited responsibility for the corporation
3. Easy to raise fund.
4. The professional management system.
5. No limits in the exist time.

Except the advantages, there are also some disadvantages of corporations that we need to know, and they are:

1. The process of start a corporation is very complicated.
2. Must have a board of shareholders and a clear rules of the corporation.
3. Need to hold shareholders' meeting regularly.
4. Need to pay tax at two level, company level and personal level.

5.2.5 Subchapter's Corporation (S-Corp)

S corporations are corporations that elect to pass corporate income, losses, deductions, and credits through to their shareholders for federal tax purposes (IRS, 2017). In most cases, people who want to register for an S-Corp must get a permission of C-Corp. In other words, the S-Corp is a special form of C-Corp.

The major advantages of being an S-Corp is that it enjoys the pass-through taxation (Companies Incorporated, 2015). It means that the shareholders do not need to pay tax twice (first company level, second personal level). They only need to pay it for one time at a personal level. However, there are also some disadvantages. For example, the shareholders of the enterprise must be less than 75 people, and these shareholders must be the people who have hold a green card or the American citizens (IRS, 2017). Also, S-Corp cannot be a chapter of other enterprises.

5.2.6 Benefit Corporation (B-corporation)

Benefit corporation is a special form of corporations. Basically, it is a form of for-profit organization. It follows all the structure and management rules of common corporation. And there is only one thing different, which is this kind of corporation shows their concerns on environment and community. The purpose of a benefit corporation is to create general public benefit, which is defined as a material positive impact on society and the environment, i.e. maximum positive externalities and minimum negative (Wikipedia, 2017).

To be specific, when members of a B-Corporation are going to make a decision, besides the benefits and profits they can make from the decision, they also need to think about the side effect brought by the decision. For example, if they decide to build a factory in a small town, they will need to concern about the pollution created by the factory and how the factory is going to affect the life of people in the town. If they will create too much negative effects on the environment and people's life in the town, then they may need to think about a solution for the problem or try another plan of building a factory.

There is one thing needs to be noted, which is the essential nature of B-Corporation is a for-profit organization. In other words, like the other forms of for-profit organizations, the primary goal of the enterprise is to make profit for its members and employees. The consideration of effects on community and environment is secondary. Many energy corporations choose to be B-Corporations as it can help them build a better reputation among communities and governments.

5.3 Comparison on different types of for-profit organizations

With so many types of for-profit organizations, it is hard to compare them by simply looking at their definitions and brief introductions. Thus, our group did some research and made a list. The list includes 5 major popular entity of for-profit organizations and the comparison of them.

Type of Entity	Sole Proprietorship(SP)	Limited Partnership(LP)	Limited Liability Company(LLC)	Corporation(Corp)	Subchapter's Corporation (S-Corp)
Limits owner liability for business debts& obligations	×	×	√	√	√
Company can have an unlimited term of existence	×	×	√	√	√
No limit to number of owners(or shareholders)	One person	√	√	√	No more than 75 - 100
American Citizenship Requirement	×	×	×	×	√
May issue shares of stock to attract investor	×	×	×	√	×
Owners(or shareholders) can report business profit and loss on their personal tax returns	√	√	√	×	√
Taxation	Personal Income Tax	Personal Income Tax	Personal Income Tax	Personal Income Tax & Tax on (distributions) dividends	Personal Income Tax
Democratic governance (flat structure)	√	√	×/√	×	×

5.3.1 Analysis of the Form

From the form above, we can see that different for-profit entities have different functions.

For Sole Proprietorship, it does not limit owner liability for business debts and obligations, which means that the owner of the enterprise will have to pay all the loss of the organization, if it goes bankrupt. This can bring a great financial burden for the owner of the organization. Besides, Sole Proprietorship cannot have an unlimited term of existence. Which means that if the owner of the enterprise passes away, the organization may not no longer exist anymore. What's more Sole Proprietorship cannot issue shares of stock to attract investors, so compared to other forms of entities, it has less options in raising funds. However, there are also some benefits to become a Sole Proprietorship. First of all, the owner of the enterprise is only one person, which means that the owner can have a total control of the enterprise. Then it does not have a requirement of American citizen to the owner of the enterprise. Owners of the enterprise can report business profit and loss on their personal tax returns. And the enterprise only need to pay tax on the personal level. Because Sole Proprietorships are usually small business, it can have a democratic governance (flat structure). And everyone in the enterprise will have an equal chance to participate in the management of the company.

For Limited Partnership, it is similar to Sole Proprietorship. It does not limit the owners' liability for business and obligations; the exist time of the company is limited; the owners of the enterprise do not need to be American citizenship; and it cannot issue shares of the stocks to attract more investments. The number of the owners of Limited Partnership is not limited. You can have as many owners as you want. The owners of the enterprise can report business profit and loss on their personal tax returns. For taxation,

only the owners of LP need to pay their personal income tax. The LP itself does not need to pay tax on the personal level. Similar to SP, LP are usually small business, too. Thus, it can also have a flat structure in managing the enterprising.

For Limited Liability Company(LLC), it is a special entity of enterprise. It is a form that between SP and Corporation, so it shares many similarities with both SP and Corporation. Like Corporation, an LLC limits owner liability for business debts& obligations. Thus, when an LLC go bankrupt, the owners of it do not need to pay all the loss, which reduces much financial burden of the owners. Also, an LLC can have an unlimited term of existence, which means that even though the owner of a LLC passes away, the owner can pass the power of management to other people. As long as the company's financial situation is still very good and the company can keep running, the LLC will be able to exist.

Also, being similar to SP, LLC does not have limits on the number of the owners, and the owners of it do not need to be American citizens. Owners of an LLC only need to pay tax on a personal level. They can report business profit and loss on their personal tax returns. About the management structure, in some cases, an LLC can use flat structure. However, in most case, funders of organizations usually use a hierarchy system.

For Corporation, it is the most common type of enterprise in the U.S. There are several subcategories under the Corporation, which are C-Corp, B-Corp, S-Corp and so on. Most of these subcategories follow the same rules of Corporation. Only S-Corp has a slight difference with the other types of Corporation. We will talk about it later.

For most Corporations, they limit owner liability for business debts and obligations. Company can have an unlimited term of existence. There are no limits to

the number of shareholders. And the shareholders and owners do not have to be American citizens. Corporations can issue shares of stocks to attract investment, which a very effective way to raise a large number of fund in a short time. However, the shareholders and owners are not allowed to report business profit and loss on their personal tax returns. Also, the taxation on Corporation is stricter than the other kind of enterprise. Corporations needs to pay tax on the company level, and after that the shareholders and owners need to pay tax on the personal level.

As you may see from the information above, Corporation is a form of enterprise that is more suitable for large organizations. It needs a complex and hierarchized system. Thus, it cannot have a management structure of democratic governance.

For subchapter's Corporation (S-Corp), as mentioned above, it is a special form of Corporation. It follows most of the rules of Corporation, but it also has several things which are different with Corporation.

First, S-Corp has a limited number in shareholders. The number of shareholders must be no more than 75-100. Beside, S-Corp cannot issue shares of stock to attract investment. Owners of an S-Corp must be American citizens or people who hold a green card (people who have the permanent living right in the U.S). The owners of an S-Corp are allowed to report business profit and loss on their personal tax returns. An S-Corp does not need to pay tax on the company level. The owners of the enterprise only need to pay tax on the personal level.

5.3.2 Conclusion

After compare the types of for-profit organizations, we can see that each type of enterprise has its strengths and weakness. SP and LP can meet the requirement of

RENEW's democratic governance, because these two type of enterprise are more suitable for small business. However, it will be hard for RENEW to raise funds. Also the owners of SP and LP have unlimited responsibilities and obligations to the enterprise. It will bring much financial burden for the owners. And sometime SP and LP cannot enjoy the law protection. If RENEW comes with problems about law, it will be very tough to handle.

LLC is an ideal choice. The structure of the enterprise is very flexible. And it will be easy for RENEW to raise funds if they choose to become an LLC. However, being an LLC may need to sacrifice the RENEW's requirement of democratic governance.

B-Corporation is also a good choice from the perspective of RENEW's culture and belief. B-Corps care about the environment and community. They try to create positive impact on environment and community through their decision, which perfectly meets the consideration and belief of RENEW. However, B-Corps are usually large companies. And it may not be able to have a flat structure as well. RENEW is now a start-up. Thus, from this perspective, B-Corp may not be a good Choice.

5.4 Types of non-profit organizations

Types of non-profit organizations (27 types)	
501(c) (1)	Organized under Act of Congress. These nonprofits do not have to file an annual return. Tax- exempt contributions are allowed if they are made for exclusively public purposes
501(c) (2)	Holding corporations for exempt organizations. They can hold title to the property of an exempt group
<u>501(c) (3)</u>	Most common: religious, educational, charitable, scientific, and literary; groups that test for public safety, that foster national or international amateur sports competition; or organizations engaged in the prevention of cruelty to children or animals This type of nonprofit applies for its status using IRS form 1023, and files annually Form 990, 990EZ, or 990-PF

501(c) (4)	Civic leagues, social welfare organizations, and local associations of employees. They promote community welfare, charitable, education or recreational goals They apply using IRS Form 1024. They file annually 990 or 990EZ
501(c) (5)	Labor, agricultural, and horticultural organizations. They are educational or instructive, with the goal of improving conditions of work, and to improve products and efficiency
501(c) (6)	Business leagues, chambers of commerce, real estate boards, etc. They seek to improve business conditions
501(c) (7)	Social and recreation clubs. They promote pleasure, recreation, and social activities
501(c) (8)	Fraternal beneficiary societies and associations. They provide for the payment of life, sickness, accident, or other benefits to members
501(c) (9)	Voluntary employees' beneficiary associations. They provide for the payment of life, sickness, accident, or other benefits to members
501(c) (10)	Domestic Fraternal Societies and Associations
501(c) (11)	Teacher's Retirement Fund Associations
501(c) (12)	Benevolent Life Insurance Associations, Mutual Ditch or Irrigation Companies, Mutual or Cooperative Telephone Companies , etc.
501(c) (13)	Cemetery Companies
501(c) (14)	State Chartered Credit Unions, Mutual Reserve Funds
501(c) (15)	Mutual Insurance Companies of Association
501(c) (16)	Cooperative Organizations to Finance Crop Operations
501(c) (17)	Supplemental Unemployment Benefit Trusts
501(c) (18)	Employee Funded Pension Trust
501(c) (19)	Post or Organization of Past or Present Members of the Armed Forces
501(c) (20)	Group Legal Services Plan Organizations
501(c) (21)	Black Lung Benefit Trusts
501(c) (22)	Withdrawal Liability Payment Fund
501(c) (23)	Veterans Organization
501(c) (24)	Section 4049 ERISA Trusts
501(c) (25)	Title Holding Corporations or Trusts with Multiple Parent
501(c) (26)	State-Sponsored Organization Providing Health Coverage for High-Risk Individuals
501(c) (27)	State-Sponsored Workers' Compensation Reinsurance Organization Reimburses members for losses under workers' compensation acts

5.4.1 Introduction of 501(c) (3)

Purposes:

Religious/Charitable/Scientific/Testing for public safety/Literary/Educational/Fostering national or international amateur sports competition (but only if none of its activities involve providing athletic facilities or equipment/The prevention of cruelty to children or animals.

Examples:

Non-profit old-age homes/Parent-teacher associations/Charitable hospitals or other charitable organizations/Alumni associations/Schools/Chapters of the Red Cross/Boys' or Girls' Clubs/Churches.

Application for Recognition of Exemption

1) Form 1023:

Form 1023 and accompanying statements must show that all of the following are true.

- The organization is organized exclusively for, and will be operated exclusively for, one or more of the purposes (religious, charitable, etc.) specified in the introduction to this chapter.
- No part of the organization's net earnings will inure to the benefit of private shareholders or individuals. You must establish that your organization won't be organized or operated for the benefit of private interests, such as the creator or the creator's family, shareholders of the organization, other designated individuals, or persons controlled directly or indirectly by such private interests.
- The organization won't, as a substantial part of its activities, attempt to influence legislation (unless it elects to come under the provisions allowing certain lobbying

expenditures) or participate to any extent in a political campaign for or against any candidate for public office.

2) Political activity:

If any of the activities (whether or not substantial) of your organization consist of participating in, or intervening in, any political campaign on behalf of (or in opposition to) any candidate for public office, your organization won't qualify for tax-exempt status under section 501(c)(3).

3) How to show reasonable action and good faith.

An organization acted reasonably and showed good faith if at least one of the following is true.

- The organization requests relief before its failure to file is discovered by the IRS.
- The organization failed to file because of intervening events beyond its control.
- The organization exercised reasonable diligence (taking into account the complexity of the return or issue and the organization's experience in these matters) but wasn't aware of the filing requirement.
- The organization reasonably relied upon the written advice of the IRS.
- The organization reasonably relied upon the advice of a qualified tax professional who failed to file or advise the organization to file Form 1023. An organization can't rely on the advice of a tax professional if it knows or should know that he or she isn't competent to render advice on filing exemption applications or isn't aware of all the relevant facts.

4) Not acting reasonably and in good faith.

An organization has not acted reasonably and in good faith under the following circumstances.

- It seeks to change a return position for which an accuracy-related penalty has been or could be imposed at the time the relief is requested.
- It was informed of the requirement to file and related tax consequences, but chose not to file.
- It uses hindsight in requesting relief. The IRS won't ordinarily grant an extension if specific facts have changed since the due date that makes filing an application advantageous to an organization.

5.4.2 Introduction of 501(c) (4)

Purposes

The organization's net earnings must be devoted primarily to charitable, educational, or recreational purposes.

Examples

Types of organizations that are considered to be social welfare organizations are civic associations and volunteer fire companies.

Social welfare

To establish that your organization is organized primarily to promote social welfare, you should submit evidence with your application showing that your organization will operate primarily to further (in some way) the common good and general welfare of the people of the community (such as by bringing about civic betterment and social improvements).

An organization that restricts the use of its facilities to employees of selected corporations and their guests is primarily benefiting a private group rather than the community. It therefore doesn't qualify as a section 501(c)(4) organization. Similarly, an organization formed to represent member-tenants of an apartment complex doesn't qualify, since its activities benefit the member-tenants and not all tenants in the community. However, an organization formed to promote the legal rights of all tenants in a particular community may qualify under section 501(c)(4) as a social welfare organization.

Tax treatment of donations

Donations to volunteer fire companies are deductible on the donor's federal income tax return, but only if made for exclusively public purposes. Contributions to civic leagues or other section 501(c)(4) organizations generally aren't deductible as charitable contributions for federal income tax purposes. They may be deductible as trade or business expenses, if ordinary and necessary in the conduct of the taxpayer's business.

Political activity

Promoting social welfare doesn't include direct or indirect participation or intervention in political campaigns on behalf of or in opposition to any candidate for public office. However, if you submit proof that your organization is organized primarily to promote social welfare, it can obtain exemption even if it participates legally in some political activity on behalf of or in opposition to candidates for public office.

5.4.3 Differences between 501(c)(3) and 501(c)(4)

	Tax-exempt	Types	Lobbying/political activity	Deductions on donation	Restrictions
501(c)(3)	yes	Public Charity/ Private Foundation/ Private Operating Foundation	Limited lobbying. Only “insubstantial” ¹	Entirely deductible	Any profits derived from the organization cannot benefit any director, officer or other individual.
501(c)(4)	yes	Social Welfare Organizations/ <u>Local associations of employees</u>	Unlimited lobbying. Political Activities: as long as that is not its primary activity.	Not deductible	Any earnings cannot benefit any individual shareholder or member.

Planning on doing limited or no lobbying, choose the 501(c)(3) status so donors can benefit from giving to your organization.

If planning on doing a lot of lobbying or any campaigning, choose 501(c)(4) to inoculate yourself from any charges of violating your 501(c)(3) status.

5.5 S.W.O.T. Analysis of For-profit organizations and Non-profit organizations

5.5.1 For-profit S.W.O.T. Analysis

Strength	Weakness
<ul style="list-style-type: none"> Diverse revenue streams to grow the business 	<ul style="list-style-type: none"> Venture capital to kick off the business Pricing

¹ “insubstantial”: allocate less than 10 percent of the nonprofits total operating budget.

	<ul style="list-style-type: none"> • Break into the market • Difficult to generate revenues from the targeted serving constituents
<p>Opportunity</p> <ul style="list-style-type: none"> • The need for serving low income demographics with clean energy in the region is strong 	<p>Threat</p> <ul style="list-style-type: none"> • Volatility of state and federal regulations and policies • Competition from more established corporations

The routes for Renewable Energy Worcester to establish a legal entity as a small business are either S Corporation or Limited Liability Company. As the differences between S Corporation and Limited Liability Company would not affect the applicability of the analysis of for-profit organization umbrella, there is no need to establish sub divisions in the following SWOT analysis.

Strength:

As a for profit organization, Renewable Energy Worcester would be able to pursue various revenue streams by means of providing products or services or both to grow the business. Installing solar panels, providing educational services, and putting together community events might help Renewable Energy Worcester generate stable streams of revenue to sustain and potentially grow the organization in a long run.

Weakness:

As a less established small business, Renewable Energy Worcester would need a boost from venture capital to kick off the business. Moreover, attracting and securing venture capital would need sufficient human resources, a feasible and sustainable business plan, and a competitive edge in the applicable industry or positive projection of reaching the turnover point quickly to compensate the lack of track record. Moreover, the cause driven mission of serving low income community with cheaper clean energy might prove to be challenging to generate sustainable revenues at the first place. Equitably pricing the products and services would require a broad base of survey to extract the representative market indexes and needs among the target audience. Such comprehensive survey and the accompanying comparative research on the peripheral markets would take a toll on Renewable Energy Worcester's current organizational asset.

Opportunity & Threat:

Providing low income community cheaper alternative energy improves the regional quality of life. Renewable Energy Worcester could be well positioned to serve the need of low income community and improve the vitality of the region. Meanwhile, Renewable Energy Worcester would also be subject to the volatility of state and federate policies and regulations pertaining to the benefits and provisions that apply to small business in the field of clean energy. It will also face fierce competitions from more established clean energy providers when it comes to the quality of service and customers' satisfaction. Renewable Energy Worcester might not be well positioned to leverage with established businesses in the same field due to its lack of human resources, field experiences, and expertise.

5.5.2 Non-Profit S.W.O.T. Analysis

<p>Strength</p> <ul style="list-style-type: none"> • Tax-exempt incentives to solicit the generosity of philanthropy • Eligible for charitable giving from private, family, corporate, and community foundations • Applicable for horizontal governing structure • Mission centered and cause-driven work attract volunteers 	<p>Weakness</p> <ul style="list-style-type: none"> • Requires a great amount of monetary contributions and human resources; uprising rejection rate renders • State and federal regulations and polices on renewable energy are volatile. • Founder is lack of expertise and experience in the field • Horizontal governing structure might not be cost-effective • The dissolvent and transfer of a non-profit organization and its asset would be challenging • The dilemma between encompassing missions and lack of resources
<p>Opportunities</p>	<p>Threats</p> <ul style="list-style-type: none"> • The competition in the region is fierce

<ul style="list-style-type: none"> • The need for serving low income demographics with clean energy in the region is strong 	
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When it comes to incorporating Renewable Energy Worcester into a 501 (c)(3) non-profit organization that is able to provide tax exempt incentives, the strength, weakness, opportunity, and threats of such act are displayed as the following.

Strength:

As a 501 (c)(3), Renewable Energy Worcester would be entitled to solicit the generosity of philanthropy with the tax-exempt incentives. Organizing fundraising events would not only increase the regional visibility of Renewable Energy Worcester and entice and solidify donors' loyalty by the cause-driven mission, it would also have a stronger economic and sociological impact as participants from different trades in the region are united by the same cause. Also, being a 501 (c)(3) is eligible to various sources of grants from corporate, private, family, and community foundation. Such eligibility would ease of financial pressure and anxiety of a newly formed organization and provides stability and sustainability of its long-term development. Since horizontal governing structure has been seen as a vital part of Renewable Energy Worcester, being incorporate into a for-profit model would be challenging to remain the equal representation of members. Serving regional low-income groups with more affordable clean energy generates a cause in the community. Such cause would drive a force of volunteers to take on the operational tasks. Therefore, the organization would be offered a longer buffer time to solve the

contingency of lack of human resources without relocating the funding, and to focus on developing a sustainable operational model.

Weakness:

The route of applying for the tax-exempt status is time consuming. Without an established and sustainable group, and a fair amount of momentary contributions to compensate the application and processing fees, and legal consulting and assistance, the route of acquiring the status would not be applicable for Renewable Energy Worcester, let alone that the uprising incorporation rejection rate. Furthermore, the volatility on the state and federal regulations and policies and the unpredictability of the available state and federal funds on renewable energy would create an unpreferable environment for a newly formed cause-driven group. Based on the current constituents of Renewable Energy Worcester's governing body, selecting and appointing a diverse and competent board of directors would be challenging. If Renewable Energy Worcester experienced a bottleneck period, the dissolution and transfer of the non-profit status and its assets would be unavoidable. Although, the birth of the group is driven by a passionate individual who has her heart on the low-income community and her hands deep in the community, the group's lack of expertise and training in the field of clean energy, and of a track record to demonstrate the feasibility and sustainability of the clean energy work would be carried by the organization would render applying for grants challenging. Furthermore, instead of anchoring on a specific concentration, encompassing a broad base of concentrations without priorities would be unfavorable as a grant seeker. At last, the horizontal governing structure is not cost effective in front of contingencies and emergencies, the incompetent members might lag off or steer off the most optimal decision-making

process and exacerbate the situation. The structure might endanger the organizational development in the name of equal representation.

Opportunity and Threats:

The external opportunity and threats for Renewable Energy Worcester cannot be ignored. On one hand, serving low income demographics in Worcester region with more affordable clean energy is much needed. The cheaper clean energy could not only proportionally ease off the financial burden of low income households, but also could improve their quality of life as the relocation of family income would be dispersed on other necessities and entertainment. On the other hand, Renewable Energy Worcester is facing fierce competition from established non-profit organizations that have been serving the similar constituents with affordable clean energy and more formulated operational models. Their track records in the same field would better position themselves to attract a limited pool of grant providers and donors.

5.6 Introduction of Organizational Structure

After building an legal entity, RENEW needs to know what kind of structure they can use. Thus, our team look into the different structures in different entities

5.6.1 Organizational Structure for For-Profit Organizations:

Typical organizational structure for for-profit organizations are the functional structure, divisional structure, matrix structure, and the changing structure. To be more specific, a functional organizational structure builds a hierarchy based on the job titles. Such structure provides guidance and focus to the employees, but it might suffocate organization creativity and productivity. Divisional organizational structures decentralize the functional organizational structure because the roles of the employees are divided by

product or region, rather than function, within your business. (Typical Organizational Structure of a Small Business). The matrix organizational structure is team based. It combines the characteristics of a functional and divisional organizational structure. The matrix organizational structure has the most decentralization and is appropriate if your business operates on an international level, or serves different geographic regions. However, it might cause losing organizational focus and momentum. The changing structure reflects the organizational changes. It is based on trials and errors and is appropriate for adjusting the organization's growth.

Corporations:

Incorporating a business will require a three-tier structure of the organization's management. Shareholders have the ownership of the corporations. The degree of business participations may vary among shareholders depending on their interests in the corporation's decision making. Shareholders don't directly operate the business. They elect directors who share a similar vision with them to impact the business. When it comes to big picture business items, such as acquisition, merger, dissolution and the sale of assets, shareholders have the explicit rights to disapprove or approve such actions.

Voted by shareholders, the board of directors executing the visions of the corporation by electing corporate officers, setting operation policies, expanding the business and authorizing financial decisions. The size of the board of directors is proportional to the

size of the corporation. Furthermore, the integrity of the board of directors would be measured as the integrity of the corporation.

Elected by the board of directors, officers carry out the day-to-day activities of the corporation, such as overseeing employees and the operations. 4 typical officer seats are President, Vice President, Treasurer and Secretary

LLC:

Members of an LLC are the owners. An LLC is free to establish its own management model in its operating agreement, assigning individuals with responsibilities of operating the business. Any LLC can appoint a member or externally contracted individual to manage the company affairs. This provides for close control of the business and availability to have other members play a more passive role in the organization. This management is awkwardly called “Manager Managed”. (Corporate Structure and Organizational Formalities)

5.6.2 Organizational Structure for Non-Profit Organizations:

Typical organizational structure for non-profits are governance-centered, administration-centered, and programs-centered. These structures could co-exist in non-profit organizations. To be more specific, governance organizational structure is carried out by the board of directors. The size of the board and the number of their meetings are subject to the specifics of each organization and are contingent to the needs of the organization. The board members could be either compensated or not

compensated, and are accountable for the policies of the organization and is given powers by the organizations' Articles of Incorporation. (The Typical Non-Profit Organizational Structure). Nonprofit administration usually includes an executive director, or president, and office personnel. The executive director is responsible for liaising with the board and for carrying out their instructions, as well as for overseeing the people who run the programs of the nonprofit. (The Typical Non-Profit Organizational Structure). Programs -centered structure would be founded according to various program areas, such as fund-raising, operations, development, human resources, volunteer coordinator, marketing, or publicity and planning. Each program area may then have its own department head, or assistant director. Furthermore, non-profits organizations have several types of management areas that may not exist in for-profit companies. These may include fundraising and grant writing, volunteer programs and public policy. (The Typical Non-Profit Organizational Structure)

5.6.3 Organizational Structures for Different Legal Entities

501(c)(3)

The committees of 501(c)(3) is the body operating the organization. Headed by at least one director, consisting of on-the-record staff, officers, and members, the committees will be concerned about the budgeting, fundraising, and public relations of the organization.

Elected by the board of directors, officers of a 501(c)(3) may consist of positions, such as vice president, treasurer, executive director or president and secretary to coordinate with and carry out the decisions made by the board of directors. Paid staff and volunteers are responsible for implementing the decisions made by the organization's officers and

directors. However, the formers might hold administrative and managerial positions in the organization. The latters are mostly likely to be in assisting positions for the completion of operational tasks.

A 501(c)(3) structure ensures the organization fulfills its mission and accomplishes its overall goals by the governance provided by the organization's officers and board members, and by the administrative support that comes from the organization's staff and officers.

In addition, having at least one director who ensures that the organization remains in full compliance with all federal, local and state legal regulations is one of the foremost considerations for a 501(c)(3).

5.7 Other Renewable Energy Community Projects

In partnership with Co-op power, Renewable Energy Worcester is progressing on the implementation of providing alternative affordable energy to low-income community. Installing solar panels on properties of faith-based organizations is Renewable Energy Worcester current priority. Furthermore, the faith-based organizations in contact have been making efforts in mobilizing their community by means of advocating for freeing from fossil fuels and documenting its progress. With the help of non-profit partners, Renewable Energy Worcester is also looking for publicizing its mission and current accomplishments in local media. The Sunshot project which is educating the target community about the benefits of clean energy by community events has been seen as a success.

5.8 Recommendations

One of the recommendations, as the capstone team's research reveals, is applying for fiscal sponsorship from an established non-profit organization in the region or is eligible to solicit funds from the region. The non-profit organization in question should have interests and practices in the field of renewable energy and has a tie in the low-income community that Renewable Energy Worcester deems to serve. It should also have the human resources and track records in providing fiscal sponsorship services that conforms or is informed by the guideline of National Network of Fiscal Sponsors.

Having an experienced non-profit fiscal sponsor could not only relieve the administrative burden that Renewable Energy Worcester suffers as an upcoming voice serving low-income community alternative affordable energy, but also place Renewable Energy Worcester at a prime position to be eligible to solicit funds that are designated for non-profits without being in the dilemma of choosing between being a non-profit or for-profit. Renewable Energy Worcester could form a for-profit business and utilize such business entity as the engaging party to apply for the fiscal sponsorship that allows Renewable Energy Worcester to enjoy the 501(c)(3) status. The fiscal sponsorship could also allow Renewable Energy Worcester to enjoy an established network of contributors that have history in supporting or having interests in engaging such community efforts.

However, choosing a right fiscal sponsor who is not only competent and resourceful but also a good fit for Renewable Energy Worcester is important. Deciding the models of prospective fiscal sponsorship should be the first question that Renewable Energy Worcester should consider. The most commonly adopted models are Comprehensive Fiscal Sponsorship Relationship and Pre-Approved Grant Relationship Fiscal Sponsorship.

In a Comprehensive Fiscal Sponsorship Relationship, the fiscally sponsored project becomes a program of the fiscal sponsor, (a distinct difference from the pre-approved grant relationship), and is a fully integrated part of the fiscal sponsor who maintains all legal and fiduciary responsibility for the sponsored project, its employees and activities. Any work product is available to the public or to the charitable sector. The fiscal sponsor assures funders that the purposes and any restrictions of all grants and/or contributions will be met. While in a Pre-Approved Grant Relationship Fiscal Sponsorship, the fiscally sponsored project does not become a program belonging to the sponsor (as is the case with Comprehensive Sponsorship), but is a separate entity responsible for managing its own tax reporting and liability issues. In addition, the sponsor does not necessarily maintain ownership of any part of the results of the project's work. Ownership rights should be addressed in the fiscal sponsor agreement and could potentially result in some type of joint ownership. The sponsor simply assures itself that the project will use the grant funds received to accomplish the ends described in the grant proposal. (Best Practices for Fiscal Sponsors)

After choosing the right fiscal sponsorship model, Renewable Energy Worcester would need to consider the best practices that are recommended in such relationship. To be more specifically, Renewable Energy Worcester would need to take the fiscal sponsor's public interest mission and program focus, regulatory compliance, fiscal integrity, administrative and operational integrity, board accountability and governance, the process of assessing and selecting fiscal sponsored projects, fiscal sponsor service's commitment to projects, and its expectations to projects.

Having a clear mission statement that aligns with Renewable Energy Worcester's mission and its public interests is foremost for successfully establishing a reciprocal fiscal sponsorship that advances the public service in question. Secondly, the fiscal sponsor should be informed and meet compliance with all applicable federal, state, and local laws. Whether the fiscal sponsor remains in good standing as a non-profit and actively engaging in public activities should not be ignored as well. Thirdly, when it comes to managing the project's funds, assets, and other resources, the fiscal sponsor should hold a high degree of responsibility, integrity, and transparency and accountability in its conducts. Whether the fiscal sponsor has annual budget and annual financial audit available for the project to review, and maintains a systematically separated accounting that handles the project's financial activities are considerations needed to be taken account. Fourthly, the fiscal sponsor should proves the sufficiency in staffing and administrative systems, and assist the project in establishing relationships with potential contributors. Fifthly, the fiscal sponsor should have an ethical and accountable board of directors to carry out its legal and fiduciary responsibility to the sponsored project. Lastly, having a written mutual understanding between the sponsor and the project, establishing and maintaining effective reciprocal communication, and clearly and systematically adhering to ethical conduct, organizational policies and operational procedures should be stated to both parties before the establishment of fiscal sponsor relationship.

5.9 Decision Making process

To help RENEW be more efficient in the future running, our team also have done some research on decision making process. Following are the details.

5.9.1 Decision-making process of For-profit organizations

Since the primary target of for-profit organizations is to make more profit, for-profit organizations must run in an effective way. Once they have a new idea and want to apply it, in reality, they must make their actions as soon as possible so that they will not miss any chances to get a greater profit. For for-profit organizations, efficiency is everything in their decision process making.

Basically, in the decision-making process of for-profit organizations, they have two parts—small decisions and significant decisions. For small decisions, the board of director can have a meeting and discuss whether they want to take action. If the 2/3 of the directors pass the decision, then they can start to take action on it. For significant decisions, it refers to the decisions that may have a great impact on the organization's future. This kind of decision making must have the majority of the shareholders to pass it. When making decisions, for-profit organizations must put the profit in the priority position, and that is the most cases. Only in Benefit companies, when they are making decisions, after considering how much profit they may get or lose from the decision, they also need to consider the potential impact on environment and community. For example, if a for-profit organization decided to buy a piece of land to build a factory, besides the profit the can get from the project, the directors also need to think about will the factory create more jobs for the community.

In the case of RENEW, if they would like to become a for-profit organization, first, they need to build a board of directors. The board of directors is an insurance of effective running. As long as the 2/3 of the directors pass the decision, they will be able to apply it. In this way, they will not miss any chance of making more profit. Although

the flat structure of management can maximize the democracy in the organization, and make everyone satisfied with the result, it may take much more time in discussing. As a result, the organization may lose the best timing to make more profit.

Above all, the decision-making process of for-profit must center on how to make more profit and how to be more efficient as the priority aim of a for-profit organization is to make more profit. That's why most for-profit organizations have a board of directors. With it, for-profit organizations do not need to go through the long process of letting everyone agree, all they need to do is to let the majority of the directors who have a big picture of the organization's future in their mind. Meanwhile, the democratic governance may not be a good choice for for-profit organizations to make decisions. Although the process guarantees the democracy, it also slows down the whole process, which violates the basic needs of for-profit organizations that they need to be effective running to make more money.

5.9.2 Decision making process in non-profit organizations

Compared to the decision making process in for-profit organizations, the decision making process in non-profit organizations are more flexible. It does not need a strict hierarchy or system to make decisions. Unlike for-profit organizations, the primary goal of non-profit organizations is not to make more profits. Non-profit organizations are intended to create more benefits on communities and to show concerns on environment. Thus, during the process of making a decision, leaders and members of non-profit organizations should always keep that idea in mind. The decision they make should be focused on serving communities. And it should obey the spirit of their mission statement.

For non-profit organizations, the decision making process can be a major-agreed mode or a consensus mode. Both of the mode are okay, as long as the results obey their organizational spirit. For major-agreed mode, it follows the rule of minority follows the major. This decision process can be voting or discussing. The benefits of the mode are that: First of all, it simplifies the process, and shorten the time of making the final decisions. Although in non-profit organizations, members and leaders have less pressure on making more money for the organization, they still need to be efficient in decision making. From this perspective, major- agreed mode will be a nice choice.

The consensus based decision making process is another option. The benefits of using consensus based mode to make decisions is that it can help people in a non-profit organization to understand each other's thoughts. For people who work for non-profit organizations, they usually care a lot about the environment and communities. They would like to use their power to make our world better. However, because everyone is different, their method and idea on what the organization should do can various from person to person. By using consensus based will let members in non-profit organizations have better understanding of each other's thought. Also, in the process of trying to archive consensus, they may have a chance to come up with new ideas which are better than the one they already have.

However, the consensus based mode has some disadvantages, too. It could slow down the process of decision making. Because consensus based mode need all members of the organization to achieve an agreement on the same opinion. It may cost a lot of time for them to discuss the decision and then finally archive the agreement. Thus, it is better to have a leader leading the discussion and to make the final decision.

5.9.3 Conclusion

The core point of democratic governance is to let everyone have a right to speak and to participate in the decision making process. We know RENEW is very stick to this mode. However, having a leader in an organization does not violate the principle. In fact, it can be helpful in the process of decision making as there will be someone who is going to take the responsibility. In both non-profit and for-profit organizations, we highly suggested that RENEW can have a leader in the decision making process.

5.10 Similar Organizations

5.10.1 Partnerships

Currently, RENEW, in partnership with Co-op Power, is working to install solar on buildings owned by nonprofits as part of the U.S. Dept of Energy Sunshot initiative. RENEW is prioritizing faith-based organizations. One church will sign a Power Purchase Agreement (PPA) next week; two more faith-based organizations have PPAs ready for them to review. Another church is exploring solar for its several properties. A Community Development Corporation is exploring solar for its 7 properties (5 seem likely).

Another nonprofit, My Choice, is exploring solar for its 2 properties. It is difficult to say how many of these sites will move through the whole process to actually install solar, but it is safe to say that the ball is rolling. One pastor in particular wants to mobilize other faith-based organizations and to document the story of faith, freedom from fossil fuels, and social justice. He has several more prospects that he will bring to a meeting with RENEW and Co-op Power.

RENEW will partner with churches and other nonprofits to engage residents in a conversation about energy justice and celebrate successes. Once a PPA is signed, we will work with our church partner to publicize the project in local media. As more churches sign up and certainly once a project is completed, we will organize community events. To summarize our Sunshot project is finally off the ground and we are excited about the opportunity to use this project to educate our community about the benefits of clean energy.

In partnership with Co-op Power, over the next few months, RENEW will also be reaching out to residential properties that have good solar potential, and we will be scouting sites where we might install larger arrays of solar panels next year when the policy landscape changes, in order to develop community-owned and community shared solar.

RENEW hosted a Co-op Power Board retreat in Worcester on November 11-12 (several members of the Board stayed overnight at one of our partner churches). Co-op Power is looking for ways to support its Community Energy Cooperatives (RENEW is one of the Community Energy Cooperatives of Co-op Power) through grants and trainings.

We have applied for a mini-grant from the New England Grassroots Environmental Fund--the same one we received last year.

RENEW is also collaborating with E4theFuture. E4theFuture is developing various sources of renewable energy, including an anaerobic digester and solar energy on sites mainly in South Worcester. Residents who get clean energy from E4theFuture will become part of an energy co-op. RENEW has two seats on the advisory council for that

project and will be represented on the Board of Directors for the Co-op. We have agreed to do outreach and education for this project; E4theFuture will compensate us for our time.

RENEW presented at the 100% Renewables Summit in Oakham in early Fall. We will be presenting on an energy panel at Clark University next week and at the New Economy Summit at Worcester State in late January.

5.10.2 Competitors

Boston CEC/Mass CEC

The Massachusetts Clean Energy Center (MassCEC) is a “state economic development agency dedicated to accelerating the growth of the clean energy sector” (MassCEC, n.d.) in the wider New England area and the states of the Commonwealth. Their goals are to stimulate the growth of jobs, positively impact the environment and work towards the long-term economic health of the communities in Massachusetts. In addition, the aim to encourage the widespread “adoption adoption of clean energy while driving down costs and delivering financial, environmental, and economic development benefits to energy users and utility customers across the state.” (MassCEC, n.d.)

Established under Chapter 23J of the General Laws, MassCEC was founded in 2009 as a semi-public agency funded by the Massachusetts Renewable Energy Trust Fund. The trust is funded by “a systems benefit charge – totaling approximately .29 cents per month for the average residential customer – paid by electric ratepayers of investor-owned utilities in Massachusetts, as well as the five municipal electric departments that have joined the fund.” (MassCEC, n.d.)

Their mission, as written on their website is as follows: to “grow the state’s clean energy industry while helping the Commonwealth of Massachusetts meet its clean energy and climate goals.” (MassCEC, n.d.) This includes investing in programs that help local communities and business-owners to transition to clean and renewable forms of energy; connecting investors with members of the community in the renewable energy industry; and driving “innovation through infrastructure, investment funding and technology development support.” (MassCEC, n.d.)

MassCEC is responsible for the funding of 40+ programs which include: incentives for clean energy technology installations, financing for early stage companies and technology development as well as investments in training programs to build a clean energy workforce” (MassCEC, n.d.). The organization facilitates partnerships between members of the renewables industry which includes educators, universities, state legislatures as well as the financial sector in order to promote mutual growth and development of green technologies as MassCEC believes that Massachusetts is uniquely situated in the renewable energy sector to advance clean energy companies and researchers.

Resonant Energy

Resonant Energy is a renewable energy organization dedicated to the creation of green energy projects in the community by empowering people throughout the process of planning, financing and building and are committed their mission of getting clean, affordable energy to everybody and not just the privileged few.

Their mission, as is stated on their website, comprises of the following tenets: that they believe communities should be in charge of their own projects as locals are the most

cognizant of what their community needs and how best to fulfill those needs; they will not wait for the advancement of the technology in order to work for a greener future, rather they will use what is available on the market now in order to realize their goals; they believe that there is a political as well as social solution to the issue of climate change and that the main obstacle facing society now lies in the will of the people and the government who must retake power from the fossil fuel industry; they are problem-solvers; they believe that time is of the essence and that any action must be undertaken with a sense of urgency; that profit is not the be all, end all and that making money is only a means through which they can achieve their goals.

Resonant is a B-corp with a “triple-bottom-line that prioritizes economic, environmental and social goals” (Resonant Energy, n.d.) and measures success by how much they are able to impact the community; inclusivity in that they include women and people of color at their highest levels of leadership. They make it their priority to listen to people from marginalized groups in the processes of their work; and finally, they take joy in their work and make sure to “pause and make moments to celebrate success.”

(Resonant Energy, n.d.)

Resonant are involved in the following programs:

- The Solar Access Program: “which allows buildings – regardless of owner’s income – to host solar panels in exchange for clean power and energy savings.” (Resonant Energy, n.d.)
- Group Purchase: which “organizes group purchasing campaigns for residential and commercial solar arrays” (Resonant Energy, n.d.) allowing

people to buy solar panels at up to 24% less than the typical price in Massachusetts.

- **Community Owned Solar:** Resonant is working with Co-op Power to “allow anyone who pays an electric bill to purchase and own solar panels in a single, cooperatively managed array.” (Resonant Energy, n.d.)
Resonant and Co-op Power provide technical assistance with their own staff in the evaluation and building of solar panels.
- **Power Purchase Agreement:** “allows commercial buildings, nonprofits, and houses of worship that meet credit requirements to have free solar panels on their roofs and buy discounted electricity with a Power Purchase Agreement (PPA).” (Resonant Energy, n.d.)

5.10.3 Lobbying groups

Mothers Out Front

Mothers Out Front are mothers, grandmothers, and other caregivers who can no longer be silent and still about the very real danger that climate change poses to their children’s and grandchildren’s future. Their primary mission is to build their power as mothers to ensure a livable climate for all children. Mothers Out Front is a nonprofit, tax-exempt charitable organization under Section 501(c)(3) of the Internal Revenue Code. Donations are tax-deductible as allowed by law.

Their organization is currently active in Alabama, California, Massachusetts, New Hampshire, New York, Ohio, Virginia and Washington and have plans to expand. Their current membership structure is based on membership gifts which are suggested at \$15 per month or \$50 annually.

Mothers Out Front are building a powerful grassroots movement to ensure a swift, complete, and just transition away from fossil fuels and toward clean and renewable energy. Therefore, they can create a healthy climate today and a livable future for all children.

Their progress:

- 1119 switches to clean energy
- 2000 house party attendees
- 800 active volunteers

Values:

- **Realizing and Building Power:** use their power to move decision makers to take actions that will ensure a healthy environment for all children. Leadership and decision making are shared across the movement, and the process and outcomes are made transparent to our members. Build collective and individual power by encouraging personal agency, learning and sharing, innovation and risk-taking (Mothers Out Front, n.d.).
- **Building an Inclusive Community:** an inclusive movement where mothers' voices are front and center. Have a strong community built on relationships, kindness, mutual respect, and collaboration (Mothers Out Front, n.d.).
- **Working for Climate Justice:** keep our mission of a livable climate for all children at the center of our work. Focus on resources particularly in those communities who suffer the injustices of climate change and fossil fuel

use today and have been historically marginalized (Mothers Out Front, n.d.).

- Persevering with Hope and Urgency: act with urgency because we know that climate change is a critical and encompassing challenge of our time (Mothers Out Front, n.d.).

Structure:

- Volunteers who participate in our Community Teams
- Functional teams (Communications, Outreach, etc.)
- Affinity groups and our Leadership Teams
- Partners working in their communities and beyond to help further goals (El Puente/ Clean Choice Energy/ Mass Energy Consumers Alliance/ Virginia Organizing)

How it runs in MA

By teaming up with Mass. Energy Consumers Alliance (Mass Energy), Mothers Out Front is able to offer people the opportunity to get their electricity from local renewable resources. People can demand renewable energy for your home in just 10 minutes.

- Effective: People's purchase helps non-profit Mass Energy bring more local renewable energy onto the grid.
- Easy: Just grab electric bill and click on the website to get started.
- Affordable: The average household pays \$14-\$23 more per month, and the premium is 100% federally tax-deductible.

- Support: Sign up and Mass Energy will make a \$25 donation to Mothers Out Front!

6 Summary and Conclusion

6.1 Recommendation

Our research looked at types of for-profit organizations including sole proprietorship (SP), limited partnership (LP), limited liability company (LLC), subchapter corporation (s-corp) as well as b-corp and c-corp, and have concluded that none of these would fit the needs and requirements of RENEW, and have concluded that their best option is to become a non-profit and register as a 501(c)(3) organization.

Our justification in support of a non-profit organizational structure for RENEW is based on the following: tax exemption, eligibility for charitable giving, application of horizontal governing, consideration of their core mission as well as the structures of other, similar organizations. If RENEW were to register as a 501(c)(3), they would then become eligible to apply for certain tax exemptions and government grants and be able to receive charitable donations from foundations, corporations as well as individuals. In addition, the client indicated that one of their top priorities would be to keep their current decision-making structure – that is, one where decisions are based on consensus. Our research indicates that a 501(c)(3) status is best suited to this desired method of decision-making as registering as a for-profit organization would require RENEW to install a governing board as well as a director or CEO.

Together with our recommendation that RENEW register as a 501(c)(3), we have the following recommendations for the staff makeup of their organization. Regardless of whether they choose to become a non-profit or for-profit, they will need to create and fill some basic positions that will help in the day to day running of operations which include: grant-writing, accounting, HR, and legal.

Grant writing person: grant-writing is a specific skill which is why RENEW will need to hire a specialized grant-writer to write and apply for government grants.

Accounting people to manage their money and keep financial records.

HR (in the future): this is not of immediate priority but as they expand their organization they will need to a human resources person to deal with employee relations and hiring.

Lawyer (not necessarily as an employee but one with which they have a regular relationship): it is essential that they have at least one legal consultant they can go to who can advise them on all legal matters. While the cost of such a hire is sure to be substantial, it is better to be safe and prevent the organization from landing into legal trouble they might have otherwise avoided if they had been given sound legal advice. In the early stages, RENEW might be able to occasionally consult with a lawyer when the need arises but if they plan on growing they should consider hiring a lawyer fulltime. Since this is still the early stages of RENEW, consultations should cover the basics of legally running a non-profit organization, as well as filing the necessary paperwork and documentation with the state as well the IRS (if they are to receive tax exemptions).

6.2 Funding

The main source of funding for RENEW should they choose the non-profit route is government funding, mainly in the form of grants since RENEW is not a government agency. There are various advantages as well as disadvantages to this type of funding as we have already discussed but it is the most suitable fit for RENEW's activities and goals.

The other sources of funding we have looked at are foundations, development committee, individual contributions, the religious community, and corporate giving.

A foundation, which is another type of non-profit that is set up with the sole intent of providing capital to other non-profits and various kinds of philanthropic initiatives. While foundations can be similar to government grants in that they will both require RENEW to go through some sort of application and recipient selection process, foundations are mostly privately owned and are often highly selective with who receives funding and will not always accept applications.

Nevertheless, this is another avenue that we think RENEW should consider when seeking funding in addition to applying for government grants.

6.3 Development committees?

Individual giving, while contributing to a vast majority of total charitable donations in the US, is also a relatively unreliable source of funding due to its dependence on a committed and established donor base who are willing to give on a regular basis. This is why we only recommend RENEW pursue this as a source of funding when they have shored up a bigger base of support and network within the wider community.

In the US, a substantial amount of all charitable giving goes to different kinds of religious organizations who are, in turn, highly involved in community organizing events in support of many different social issues. Since RENEW are already working together with the local religious community on their solar panel project, we recommend that RENEW seek to collaborate further with local religious leaders in the future. For instance, they could seek to host joint fundraising events or facilitate community-awareness groups aimed at educating people on solar energy which will also serve the

dual purpose of exposing more of the local community to RENEW, thereby increasing the organization's networking capabilities and exposing more people to RENEW's mission.

Corporate giving, especially on a larger scale, certainly has great potential in securing a substantial amount of capital that startups like RENEW need in their initial phases of operation. However, we do not recommend this type of funding for RENEW for a number of reasons: since corporations and businesses are driven by profit rather than goodwill, it could be a conflict of interest to accept money from certain companies whose operations contradict the core mission of RENEW; the drive for profit also means that corporations will not be able to donate if business is bad, thus making any recipient dependent on the profitability of the company; corporations tend to be less invested in local communities than the organizations they donate to; and finally, it is not always clear if a corporation is donating to a cause because they genuinely care about an issue or if they are doing so solely for good PR. Unless RENEW are able to solicit corporate giving from smaller businesses that are rooted in the surrounding community who share their vision and are committed to renewable energy, we strongly advise against this form of funding.

6.4 Funding Category Recommendations:

Following is the list of specific fundraising sources. Discussions of each category and what is and is not going on there.

Categories

- **Government**
- **Foundations**

- Board/Development Committee
- Individuals
- Religious Community
- Fees for Service/Earned Income
- Corporate Giving
- Special Events
- Service Clubs
- Planned Giving
- Endowments
- Capital Campaigns

What: Explanation in detail of whether or not fundraising from that source, why it is or is not important, or why it is not being pursued. Who is it okay to and not okay to take funds from. Describe category itself, goals for what Renewable Energy Worcester will do in that category. What connections are available. If not ready to pursue, recommendation for the future. To contain:

- current relationships in that category
- successes
- funding amounts from that category.
- How much in each category money have been increase each year
- what resources are needed to develop that category; new staff, thank you letters, professional development, board relationships- what is needed to approach and reach these goals.
- Examples of what has already happened

6.4.1 Section 1: Funding Category Recommendations

- Government
- Foundations
- Board/Development Committee
- Individuals
- Religious Community
- Fees for service/earned income
- Corporate giving
- Special events
- Service Clubs
- Planned Giving
- Endowments
- Capital Campaigns

6.4.2 Government

Government funding can come in a variety of ways and at different levels. For example, funding can come from a municipal level, state government, and federal sources. As Renewable Energy Worcester is not a government agency, government support is most often found in the form of grants. When state or federal governments procure funding for a project, such as creating drug-free communities, they will often send out a request for proposals for projects to suppliers or vendors who will be able to supply them. This is so as to save the government from having to create the necessary facilities themselves, and from having to establish an excess of new programs and agencies.

Renewable Energy Worcester qualifies as a sort of “solar energy contractor” in that we have the necessary tools and facilities to work towards the goal of, justice to the social, energy independency and creating a greener community or helping environment. By applying for funding through government grants, Renewable Energy Worcester is funded for specific goals and projects that the government wants to achieve, and must create written reports for the results of these programs to the govt. funders. Renewable Energy Worcester must compete with other applicants to be selected for funding, and there is no guarantee that applications will be chosen to be funded. It depends on who else is applying, what has been allocated for in the govt. budget, and what funding the government itself has to work with.

Pros:

- Government grants can often be very large, covering multiple years
- Renewable Energy Worcester has an established support from CO-OP Power which is successful and big company and several staff with that expertise could make them reliable for government to tracking.
- Grants can enable an agency to explore new program options that would otherwise be impossible.
- Renewable Energy Worcester’s level of dependency on grant funding, while high, is roughly on par with comparably-sized organizations.

Cons:

- The competitive nature of grant funding makes it an unreliable source of income, and it is dangerous to rely upon grants with this uncertainty.

- Competition for grants can discourage inter-agency cooperation, which is often required to get lasting results.
- Grants mean grant reports, which can consume a fair amount of staff time
- Chasing grants can lead to “chasing the money”: creating initiatives that won’t last without the funding, and funds are often restricted to use for specific programs
- Government grants are becoming scarcer and more competitive, and will continue doing this for the foreseeable future

Conclusion: Government grants are a bit like nuclear power: a little dangerous, a little unstable, but at present very, VERY necessary (to keep Renewable Energy Worcester going.)

6.4.3 Foundations

A foundation is a type of non-profit organization dedicated exclusively to funding philanthropic work and other charitable initiatives:

“for example, [Michigan](#) permits its use only for nonprofits with "the purpose of receiving and administering funds for perpetuation of the memory of persons, preservation of objects of historical or natural interest, educational, charitable, or religious purposes, or public welfare."

They are non-profits that exist only to fund other non-profits, and have no actual mission or actionable mandate of their own. Typically, foundations come in two flavors: community foundations, wherein funds come from a wide variety of sources and are pooled so as to better serve a specific community of interest, and private/family foundations, where the majority of contributions come from a specific family or corporation. Private foundations are typically chaired by members of the contributing

family or company, and have more control over where their funds go. Foundations can provide grants, or choose to do direct funding of specific initiatives. They are often limited in geographic areas targeted, but can provide more generalized funding for operating expenses than government grants or specific program initiatives. In 2010, foundations gave \$41 billion, constituting 14% of all charitable giving.

There is a new trend in private family foundations in that many are being created with specific closure dates. This contributes to their instability as funding sources, but they remain valuable revenue sources to pursue. The amounts foundations grant vary WIDELY, from \$200-\$50,000+. They too are competitive with who gets funded, and many do not accept unsolicited applications. Their schedules are all over the map, as are the submission deadlines. There are a huge number of foundations out there, and finding the right ones to apply to can consume a fair amount of staff time. However, seeking out private foundation support is in line with Renewable Energy Worcester's goal of soliciting more donations from individuals.

Pros:

- Established connections and history of steady support
- Funding possibly less restricted than government grants, and can mean less stringent grant reporting requirements
- Larger number of foundations to choose from= possibly less competition, depending on how applications split
- More local community foundations give Renewable Energy Worcester a better chance to cultivate positive donor relations with the decision-makers on the boards of these organizations

- There are resources readily available to help non-profits search for appropriate foundations
- Not dependent on federal funding fluctuations
- Applying to family foundations is in line with Renewable Energy Worcester's goal of soliciting more donations from individuals

Cons:

- Ultimately, foundations are very similar to grants, and Renewable Energy Worcester has a stated goal of moving away from grants
- Foundations are often *extremely* picky/specific about who they fund, and don't always accept applications
- Searching for the right foundations to apply to can consume a lot of staff time

Conclusion: foundation funding makes up a largely unexplored area of funding for Renewable Energy Worcester. It is advisable to look into it further, especially in the case of private family foundations in line with Renewable Energy Worcester's goal of fundraising more from individuals.

6.4.4 Board/Development Committee

Board members are among the most valuable assets an organization has. They are already dedicated to the story and mission of the organization they serve at, which are essential to promoting the health of that organization. In non-profit best practices, all board members (as well as staff and volunteers) should be committed to fundraising for the organization and making an annual donation themselves. Board members help steer the direction a non-profit takes, working with staff to stay on-message and strengthen it.

They are capable of contributing much to an organization's fundraising plan through having established connections with the community, a passion for the mission of the non-profit, and contribute expertise in other areas such as marketing, management, technical skills, familiarity with different demographics, et cetera.

Renewable Energy Worcester's board has a unique structure. By design, it is half youth, half adults, encouraging all who Renewable Energy Worcester serves to have a say in what the organization does. There is a youth chair and an adult chair and this combination bring them a vast point of view, they make occasional meets according to decision they need to make under voting system base on horizon democracy strategy that they have on their organization.

Pros:

- Renewable Energy Worcester has created its board with new members, both youth and adult, educated (Clark student) and expertise
- Renewable Energy Worcester board has a strong interest in volunteer work till the organization fiscally sustainable, and has access to skills that will promote that goal
- Renewable Energy Worcester's board brings together a wide array of talent

Cons:

- Board members are not staff: while dedicated to the mission and wanting to put together a new fundraiser, the board's efforts must contend with personal limitations (jobs, homework, etc.)
- The idea for a new board fundraiser has been already implemented by

local people, about the kind of funding method has not yet solidified

- Personalities and schedules can clash
- Staff contact with board members can be limited

Conclusion: Renewable Energy Worcester’s board cares very much about the organization’s work, but has experienced difficulties making concrete plans and following through. The influx of new members and new energy has had a very positive influence. Renewable Energy Worcester’s administration is dedicated to working with the board in a productive way. The potential here is great.

6.4.5 Individuals

Individuals and households constitute by far the largest contributors to charitable giving in the United States. In 2010, individuals gave 73% of all contributions, \$211.77 billion dollars. Individuals often show great dedication to favored causes; total giving, when adjusted for inflation, was up 3.8 pct. in 2010, despite economic conditions. While grants, corporations, and foundations are easier to target due to being much less complicated, individuals give the most.

Individuals should actively being pursued and for this purpose it need to use the software, one of the best one in this case is Gift Works Cloud software which is part of the Panorama platform from FrontStream Holdings. For keep tracking, accessing to the data base, categorize the prospect group of many characteristic this kind of software would be necessary to implement on the organization

“The majority of Fortune 500 companies match employee donations to charitable organizations – often dollar-for-dollar! FirstGiving includes free and integrated corporate gift matching on every online donation form, allowing your organization to potentially

DOUBLE each pledge. A trusted database of over 20,000 North American employers is built right into the donation process.” (frontstream website)

Pros:

- Organized donor database
- Individuals constitute the largest portion of charitable donations
- Individual donors self-perpetuate **if developed with care**- people tell friends, family, families continue on in Renewable Energy Worcester program, could become part of an individual’s routine is vastly more reliable than competing for grants or foundations
- Renewable Energy Worcester could create a platform upon the software to be connected with donors and has developed a video series to aid in storytelling in order to encourage them.

Cons:

- Developing relationships with donors is something that takes effort, care, and time.
- It can be more difficult to target individual donors, especially outside of a specific fundraising event
- Individuals can only be solicited by so many asks before fatigue sets in

Conclusion: Renewable Energy Worcester needs to focus effort on developing relationships and network over the Individuals into increasing donations. The one that does make help to manage is a platform trends in technology. Create and implement a new fundraiser focused on major donors. Explore electronic methods of accepting

donations for all fundraisers. Develop relations with donors through increased personalization and correspondence.

6.4.6 Religious Community

Religious organizations receive the majority of individual charitable donations in the United States, with over 60% of individual contributions going to churches, synagogues, and the like. 45% of charitable donations in total go towards supporting organized religion. Religious organizations are often very involved with social issues such as Environmental issue like climate change and it would be better if it became the same purpose of helping people via decreasing the bill cost. Faith-based organizations necessarily draw from a large base of passionate individuals who are committed to their community. The religious community often has a hierarchical structure, and grant funding is often concentrated at the national level for specific causes (human rights, hunger relief, homelessness, etc.) Grant amounts vary widely, anywhere from \$5,000-30,000.

Social networking is critical to success in fundraising from the religious community. While funding is now often focused on a local level, it still must go through regional or national approval. The best approach is to get in touch with local ministers/priests/rabbis/imams directly and try to arrange a time to chat with the congregation about your organization's mission, and how it ties in with what that congregation cares about. Churches, synagogues, and mosques often place a heavy emphasis on caring for the community, and can provide a source to recruit volunteers if not funding. It is recommended that you build the relationship first before asking for funds.

Renewable Energy Worcester has no history of working with faith-based groups in search of funding. Seeking revenue from religious organizations can be controversial, especially with the need to be sensitive to youth and parent concerns about possible bias and religious influence in programming. In addition. While support from religious groups can provide a more stable source of funding, it can raise concerns. This issue will be addressed by the board of directors and the administrative staff of Renewable Energy Worcester.

Pros:

- The religious community provides the potential to greatly expand Renewable Energy Worcester's social network
- Religious organizations can be formidable partners in helping inspire community members to lead justice to the social
- Churches/Synagogues/Mosques are filled with people who are already community-minded and likely to care about humanity and helping low-income communities
- Once obtained, funding from religious organizations is a more stable source of revenue than grants

Cons:

- Receiving funding from religious organizations has the potential to be extremely controversial and, if widely known, has the potential to convey a false message about Renewable Energy Worcester's goals and may dissuade some people from using Renewable Energy Worcester's services
- Requires significant staff time investment

- Still, in essence, grants

Conclusion: The board of directors and the executive director must decide on Renewable Energy Worcester's fundraising ethics before deciding to pursue this option. Schedule time during a board meeting to decide upon whether or not this is viable. Funding from these sources tends to be moderate in scope but repeated

6.4.7 Corporate Giving

Corporate giving is relatively straightforward. For-profit businesses can deduct charitable donations, whether of goods and services or cash, as a tax write off just as individuals can. Charitable giving provides businesses with this tax credit as well as a way to support non-profits in the community and therefore gain positive PR exposure, advertising with good vibes attached, and socially responsible business practices. Large corporations may also have matched-giving programs for charitable donations made by their employees, and businesses may also provide time for their employees to volunteer during the work day. Vermont is home to many small businesses and many businesses with a strong social responsibility bent to them, as shown by VBSR (Vermont Businesses for Social Responsibility).

Obtaining donations from businesses can be difficult, especially for local small business owners who often get many requests for donations from different orgs. In fact, charitable giving from businesses makes up 5% of all giving. You will have more luck fundraising from dead people (charitable bequests amount to 8% of giving.) What is crucial to retaining and strengthening corporate donor relationships is **recognition** and **write-offs**. Recognize the business's contribution by offering to place their logo on promotional materials, and thank them promptly. Tax exemption letters are slightly

different for in-kind donations from businesses: the cash value must be left blank for the owner to fill in with the actual value of items donated. Owners are often much more willing to make in-kind donations, as the actual cost of the item is often much less than the price it is sold for.

In the case of large corporations, they may sponsor a non-profit foundation in the business's name. For example, there was a healthy living grant from Pepsi Co. that could have funded capital improvements for Renewable Energy Worcester's space. However, there may be ethical issues that arise depending on what sort of corporation is offering funding. For example, if Phillip Morris were to offer a grant funding a new teen center space and Renewable Energy Worcester's operating cost for the next 5 years, it may be financially beneficial, but would run counter to Renewable Energy Worcester's mission. This is something that needs to be addressed by the creation of ethical guidelines for fundraising by the board and staff.

Pros:

- Businesses are usually much more willing (and much easier) to meet time-sensitive in-kind donation needs than individuals are
- Corporate matching programs have the potential to increase individual giving and make Renewable Energy Worcester more well-known to the donor's coworkers.
- Business owners have an incentive to give for positive publicity, to get rid of unsaleable stock, and to contribute to their community
- Owners may help by allowing Renewable Energy Worcester to advertise events within their business

Cons:

- Business owners are driven by profit, and cannot always donate if business is bad
- Corporations can be less invested in the community than small business owners are
- Corporate giving is VERY small when compared with the total amount of charitable giving in the US
- Relations can deteriorate if the donor is asked too many times in succession; this must be avoided at all costs

Conclusion:

Business and corporate giving makes up 5% of all charitable giving. Local business owners can be valuable allies and tend to be invested in their community. It is much easier and more economical for the businessperson if Renewable Energy Worcester request in-kind donations. They are more likely to agree to give items than cash. The board must establish guidelines for which businesses are okay to solicit funding from. Work with business owners to get donated raffle prizes for fundraisers. Increase outreach to businesses for advertising.

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7 Appendix

Lessons Learned

The Capstone Team appreciates the experience of working with Renewable Energy Worcester on business formation consultation and would apply the lessons learned in the future entrepreneurial practices.

We learned the optimizations of both external and internal communication are paramount to the success to start-up projects. Start-ups tend to be at the intersection of different influxes. Making informative decisions effectively and efficiently with the considerations of future ramifications is essential but also challenging for start-ups. With limited human resources and capital, maintaining daily operations and executing long-term development strategies lie on the center of such decisions.

We also learned flexibility is much needed for the vibrancy of start-ups. However, flexibility without considerations of constraints underlying in current business practices would not be in favor of start-ups' growth. The fine line is at adjusting long-term goals with flexibility in the executions of short-term goals. The early development trajectory of a start-up might be fraught with overwhelming opportunities. Sifting through those opportunities and taking on ones that not only align with the group's long-term goals but also could be realized in the current business execution.

Furthermore, we learned how to find balance between time and workload. Sculpting down the scopes of the project and setting up different milestones at the beginning of the capstone project help us prioritize the tasks demanded by the client and ensure the quality and practicability of final deliveries.

Another take-away is leadership and team morale affect the productivity and effectivity of a team. A leader who is able to inspire team members at the face of demanding timeline and robust tasks is indispensable for the success of this team project.

At last, the success of this capstone project cannot leave the utilization of technology. With the help of cloud-based file sharing and instant messaging applications, the capstone team is able to orchestra team activities effectively and efficiently.

I. Capstone Monthly Report

Project Name: Renewable Energy Worcester (RENEW)

Team Members: Omid Ashrafi, Jing Han, Yiming Xu, Danni Yue, Amy Zhang

- *September*

In this month, we started our Capstone project. On September 6th, we had our first capstone meeting, then we get to know the basic structure of capstone. A week later, we get assigned teams and the project. After having the meeting with the advisor and our client, we have more information about our project. At the end of this month, we are aware of the date of final presentation and getting our project on track.

In fact, most of our members did not have working experience in renewable energy cooperation and also not familiar with non-profit organizations. In order to solve this problem, we did a lot of research and integrated the questions for our client. After the meeting with clients, we got to know more about them and we were clearer about our team goals. After the basic structure was decided, we assigned different parts of the charter to each member and start working on the project.

- *October*

This month, our team has completed several main tasks. We finished our project charter, sent it to our client, got feedback, and made some changes to it. We also separated our work into several parts, and every team member had tasks to do. We hoped that by assigning team members to different missions of the project, we could be more efficient.

Most team members in our team do not know organizations very well, so we need to start from the very beginning. We did some research on what is the definition and features of for-profit organizations as well as non-profit organizations. We also investigated on some organizations that run business in solar energy and renewable energy.

At the same time, we faced some problems in the process. For example, after we sent the charter to our client, she seemed to be not satisfied with it. We tried to figure out what the problem was, but communicating by email made it hard for us to understand each other. Thus, we decided to make an appointment with her and talk to her about the charter face to face. After the meeting, we finally knew what she wanted. Although it took a long time for us to figure it out, we made it eventually. We all felt happy that we could move forward to the next stage of our project.

Another problem is that most of our team members' majors had little association with building an organization. Thus, our teammates seemed to be upset and not confident about what we were going to do. Luckily, we got some help from our advisor. We met with her regularly, and she gave us many useful suggestions. We hope we can do it well in the next stage of our project.

- *November*

During this month, we looked into the typical organizational structures for non-profits and for-profits. We also delved into different types of legal entities that reside in the two categories and the availability of different funding that fit in each type. As one of Renewable Energy Worcester's goal is to provide an alternative affordable energy for

low income demographics, we researched on the operational specifics of solar energy, and conducted a cost/benefit analysis for its potential implementation. Based on the previous meetings with Renewable Energy Worcester, we took efforts on deciphering and clarifying the ramifications of highly mentioned “consensus-based decision making” to mitigate any possible miscommunication between two parties and to render capstone deliveries with better precisions and accuracies. From this point, we also researched on the decision-making models commonly adopted for different types of organizations. By the end of first week in November, we took initiatives in analyzing the competition landscape facing Renewable Energy Worcester to validate the holism of this week’s research.

As the research progresses, we completed the background research on the alternative affordable energy industry and SWOT analyses for Renewable Energy Worcester forming a for-profit or non-profit. We also gained deeper insights on the previous and ongoing projects that Renewable Energy Worcester engages. From this point, we conducted comparison studies between the client and existing renewable energy organizations located in the proximity and the non-Massachusetts on organizational structures, business formation, and operational specifics. By the end of November, we completed research on the relationship between Renewable Energy Worcester and COOP, exemplary referential case studies, and the possible development trajectory of the client’s advocacy efforts.

- *December*

During this month, we looked into the funding organizations and how could request for grants from government or other organization like charity, beside our research around funding we also tried to make a conclusion about all of our research like nonprofit or for-profit and other suggestion around how to develop the company like we describe as in the early phases RENEW will not need a fulltime lawyer but it is a good idea to build a relationship with a consultant to help with state documentation and IRS paperwork, In the second approach we start to manage our data to make a presentation power point and start to practicing our part individually and also as a team work. Attending on the other team presentation to reach the experience and point of presenting and be familiar with the atmosphere of the capstone presentation.

Separating the final duty such as printing and preparing the data as a final format was our another team work by setting a meeting on Sunday as a final gathering and make a final practicing on Monday before the presentation.

II. Project Charter Renewable Energy Worcester

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Glossary of Terms in a Project Charter

This glossary defines key terms used in this document. Although some of the terms will have slightly different definitions outside of this project, this glossary defines the meaning within this initiative.

Assumption – An item taken to be factual even though that fact has not been confirmed. Wherever possible the accuracy of assumptions is validated during the project

Constraint – An unchangeable condition that impacts the project.

Contingency – An activity, budget or time-period that is held in reserve in order to minimize the impact that a risk has on the project if that risk is realized

Major Stakeholder – One of the key interested parties and decision makers in the project.

Mitigation – An activity that is undertaken to minimize the impact and /or the likelihood of occurrence of an adverse risk or to maximize the impact and /or the likelihood of occurrence of a positive risk

Project Charter – This document. The document that authorizes the project and sets out the framework for what is to be done and how it is to be managed.

Project Manager – The person responsible for the management of the execution of all work items.

Required End State – The definition of what constitutes a completed project.

Risk – An uncertainty that may impact the project in either a positive or negative manner if it occurs.

Scope – The sum of the changes to be made in order to achieve the Required End State.

Steering Committee – The group of people responsible for making major decisions on the project.

1. Project Overview

1.1 Introduction

This project is about developing the existing organizational structure for RENEW Worcester, which is a non-profit organization that works to improve access to renewable energy for economically disadvantaged people in the community; bringing the story of transitioning off fossil fuels to low-income communities, including communities of color, non-English speaking immigrant communities.

When analyzing their current structure and coming up with a suggestion for what legal pathway RENEW should pursue, we will prioritize their goal of project development which includes developing renewable energy projects that bring living wage jobs and pathways into the renewable energy industry to Worcester residents, particularly their target populations. In addition, we will take into consideration their goal of doing advocacy work which includes bringing awareness about energy democracy to local communities.

We will also take into consideration that in developing the legal entity of RENEW, that organization staff members should be members of the community and will be compensated for their time as well as receive training.

Major Stakeholders

Capstone team: Amy Zhang, Xu Yiming, Danni Yue, Jing Han, Omid Ashrafi

Client: Renewable Energy

Low income communities

Competitors

Capstone Advisor: Mary Piecewicz

1.2 Document Purpose

- *The desired end states.*
- *The project scopes.*
- *Assumptions, constraints and risks.*
- *Communication and structure.*
- *Roles and responsibilities.*

2. Project End State and Scope

2.1 Required End State

The project will end on December 10th, 2017.

2.2 Project Scope

The project is divided into 2 main phases with an optional 3rd phase: research, recommendation and a business plan (where applicable). Each phase will be sectioned into portions which will then make up the general project scope.

Research: the research portion will cover the differences between non-profit organizations and for-profit organizations, as well as the benefits and drawbacks of both. It will include a SWOT analysis of the legal entities best suited for an organization such as RENEW. The research will also include information on the different types of funding that are available to both non-profits and for-profits. It will also include information on organizational structure and explore the most common types of corporate structures for non-profit and for-profit organizations. The research will take into account that RENEW wants to retain its consensus based decision making structure.

This portion will include information on major competitors located in the Worcester city area but will also include the greater Massachusetts areas if the competitors in Worcester depending on the viability and market competitiveness of the local competitors. These will include CEC Boston, Sunshine Project Resonate and others such as Mothers Out Front (a lobbying organization) as well as other renewable energy community projects where applicable.

The project should include information (if available) of at least 3 major competitors in the local Worcester area as well as the greater Massachusetts area. The purpose of this is to compare the legal entities available to RENEW and compare the options available. The last part of research will be into how RENEW can benefit their community which will include the use of best case examples found from the greater Massachusetts area.

The second phase of the project will be the recommendation step and summarise the findings from the research stage and provide a conclusion based on the data and information collected. The recommendation is intended to express what the group thinks will be the best avenue for the organization to pursue in terms of internal structuring and of whether they should register as a non-profit or for-profit organization.

In addition, there will be no surveys conducted and no signing of a non-disclosure agreement.

Work Area	In Scope	Out of Scope
	Recommendations of organizational structures: non-profit or for-profit	Implementation of organizational structure
	Implementation of legal entity	
		No surveys

2.2.1 Change Management

Since we only have ten weeks to finish the project, it is hard for us to accept big changes such as the direction and the content of the project. If the client wants to change

something during the project, we will reserve the right to reject the requests depending on the time, cost, and scope.

3. Assumptions

- The capstone team will not be expected to handle confidential financial information
- The scope of the capstone will not branch out to the territories that are not mentioned in the charter, including the execution of business plan and marketing efforts
- Team members will contribute equally
- The client will be pleased with the final deliverable

4. Constraints

- The uncertainties of financial resources might constrain the attainment and analyzation of decision-altering information
- Because the deadline is quite close, the project doesn't allow for any randomly changed circumstances, which includes the changing mind of stakeholders, the changing of goals and any other shifting ideas. It may influence the accomplished quality of the project
- The scope and objective of the project might be constrained by the flat organizational structure.

5. Risks

For risks, we divide it into two parts. The first part includes any risks that may bring positive manners. For instance, a positive risk would be the possibility of a job opportunity by accumulating related experiences after finishing the project.

The second part includes any risks that may bring negative manners.

- **Employee risks.** Because the business plan may include changing the organization into profit organizations and changing the organizing structure, it needs the agreement of the whole organization. We need to make sure everyone is fine with our final decision to avoid conflicts and unnecessary loss.
- **Unexpected risks.** The schedule of the project is subject to unexpected change
- **Economic risks.** The economic situation in Worcester is relatively weak compared to Boston, which may limit the development prospects of the organization. Some unrealistic expectations may not be fulfilled.
- **Background risks.** For one thing, it includes the risks which we may face when collecting background information. We need to do a lot of research about organizations including for-profit ones and non-profit ones. And the primary way is gathering information on the internet.
- **Information gathering risks.** To figure out the structure of the organization, we may need to look into the organizations and acquire some information about how they organize and manage themselves. However, some organizations may not want to share the information with us. In this case, it

will be hard for us to get the information. As a result, we may have only a few sample to study and analyze.

- **Communication risks.** For the project there is risk which we may face in our team, because half of our group members are non-English native speakers. This will cause two potential obstacles: one is communication. Another is writing skills. About the first one communication, since half of the group members are non-English native speakers, misunderstanding can happen because of the language barrier. And this will deeply affect the communication efficiency of the team. Sometimes it may also cause a problem in communication between the client and our team. The second obstacle is writing skills. For non-English native speakers, they must be more careful when they are writing and it will take more time. Sometimes they may misuse words in the paper, which will lead to the confusing or misunderstanding of the work.
- **Authenticity risks.** This program requires knowledge in business area and organization structure. However, only one student majors in MPA, and the other students are students of MSIT and MSPC. Our knowledge and skills about business and constructing organizational structure is limited. Thus, our suggestions may not be fully developed.

6. Communication Strategy

- **Communicating with the client**

We will use email and face-to-face meetings. Email will be our primary contact ways for regular report and general questions. Face-to-face meetings will be used when

we have specific questions and need to get a clear answer. We will make a reservation with the client representative before meeting with her.

- **Communicating within the team**

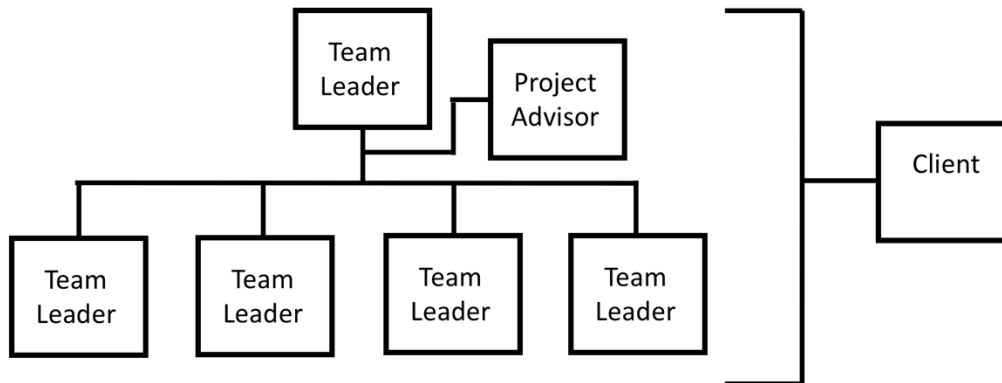
We will use WhatsApp for daily communication such as deciding dates of group meeting and when should we submit our documents. We will also use emails and one drive to share documents and our work.

- **Communicating with the advisor**

Weekly meeting with advisor and monthly report to her.

7. Project Structure

- The capstone delivery is a two-part writing. The first part is an analysis of different business entities. The second part is a sustainable business plan.



8. Steering Committee and Stakeholder Commitments

8.1 Steering Committee (if applicable)

- Not applicable

8.2 Stakeholder Commitments

- Timely response to the team's requests
- Attendance at final presentation on: 11 December 2017

9. Roles & Responsibilities/RASCI Chart

	Roles / Responsibilities				
	Fiona	Omid	Danni	Amy	Jing
Project charter including end state and scope	I	I	I	A/I	I
Project management and control	I	I	A/I	I	I
Project communication	I	I	A/I	I	I
Research	I	A/I	I	I	I
Problem identification and analysis	I	I	I	I	A/I
Monthly Report	I	I	I	A/I	I
Paper writing and proof reading	I	I	I	A/I	I
Printing	A	I	I	I	I
PPT	I	A/I	I	I	I

10. Dependencies

The relationship between activities is a linear one and should work in such a way that each activity comes after the last in chronological order. The first activity is the project charter which includes such things as the responsibility matrix which should then be signed by the client and okayed by the supervisor. After which the research should begin and will be conducted according to what has already been discussed in the project charter and project proposal outline.

The research portion will depend on each group member completing their assigned research topic/aspect together with the team. After the research has been gathered, the group must work together to sort and analyze the data and information so that the next step – coming up with a recommendation – can be completed. The recommendation cannot be done without the completed research.

The next phase which is the business plan step is dependent on both the research and the recommendation step being completed so that the group may form a business plan accordingly. This step, however, can be done alongside the recommendation step if the need arises as it is mostly dependent on the research.

11. Measures of Success

Project Performance Dimensions by Project Success Factor	
Project Outcomes	Measure of Success

Recommendations to RENEW	Satisfied client
Capstone Paper	B+ or better grade for each team member

12. Stakeholder Sign-off

This project charter has been signed off by the following stakeholders:

Name Title Date

Name Title Date

Name Title Date

Name Title Date

Name Title Date

Name Title Date

Project Teams Members:

Name	Title	Date
_____	_____	_____
Name	Title	Date
_____	_____	_____
Name	Title	Date
_____	_____	_____
Name	Title	Date

III. Meeting Notes

What they want

- Figure out the legal entity they can use
- What they can do under the entity? How much the entity can support their mission (creating jobs advocacy missions)
- Community and consensus base decision making is primary
- How does the legal entity support building the membership in CEC?
- Would the relationship with co-op power be changed by their choice of legal entity (now chapter of co-op power and they want to keep it)

What we know

- The legal entity impact
- Community decision making is primary
- A board of membership (related to the things above)

- Small but thriving company. As a member of co-op power. Growing membership in co-op Bring the fee down but need to work. When they become a member of other CEC
- Job creation potentials.
- If for profit as long as the Mission remains the same (search for the competitors who share the same idea with them)
- Vote for who is goanna to be the present of board of co-op power
- A possibility to be membership based
- Primary energy democracy then project management
- Mission creating access to clean energy middle low income family evolve everyone in
- Energy system controlled by community
- National grid.
- Want to develop project for low income people. Provide them benefits.
- Lowest priority: lobbying
- Educate the community
- An organization they want to work with Mothers' out front (advocacy orgazation)
- To be two things

For now, chapter of co-op power

Then they can be:

- A chapter of co-op power
- Being separate.

- How project might go

Now A CEC of co-op power

CEC has member of pay the fees to the co-op power

Solar design is co-worker with co-op power

They are now CEC

- Community energy cooperator
- Sunshine project Resonate (solar design company)
- CEC: in Boston

Capstone Lessons Learned Spring 2017

What worked?

1. Weekly meeting with Mary
2. Communication with our Client
3. Prepare for the final presentation
4. Work Assigned (Decisions of each group members' responsibility).

What can be improved?

1. Communication Strategy. Sometimes What's app does not work.
2. The way we organized our group meeting
3. How to make agreement inside our group.
4. Our work efficiency.

What we would not do again?

1. Putting too much information in our slides