Table of Contents

Executive Summary........................................................................................................................................... 1
Dawn of a New Era........................................................................................................................................... 2
Dark Clouds Ahead? ....................................................................................................................................... 3
The Future of Energy will be Cleaner, Cheaper, and Bright........................................................................... 3
Solar’s Bright Future ......................................................................................................................................... 4
GRID Alternatives: The Largest Nonprofit Solar Installer in the Country .................................................. 5
   Free Installation of Solar Panels.................................................................................................................. 5
   Training the Workers of Tomorrow.............................................................................................................. 5
   Women’s Bright Future in Solar .................................................................................................................... 6
Rising Up with Partners across the United States .......................................................................................... 7
Rise of Profitability.......................................................................................................................................... 7
Sunrise will let Exelon Rise above the Competition....................................................................................... 8
   Three-years of Sunrise .................................................................................................................................. 8
   Combining Solar Installations with Electricity Delivery .................................................................................. 8
   We Shine ....................................................................................................................................................... 8
How Exelon will bring Sunrise to the Maryland Community ....................................................................... 9
   Step 1 (August 1, 2017) – Initial Meeting between GRID Alternatives and Exelon. ................................. 9
   Step 2 (September 1, 2017) – Finalize a three-year partnership between GRID and Exelon; Begin
discussions with Exelon’s Mid-Atlantic Division to proceed with partnership.......................................... 9
   Step 3 (September 15, 2017) – Begin advertising and bringing awareness to the new partnership
established between GRID and Exelon ........................................................................................................... 10
   Step 4 (October 15, 2017) – GRID determines most viable candidates of Exelon customers.................. 10
   Step 5 (November 15, 2017) – GRID and Exelon construct build-sites at GRID determined locations. 11
   Step 6 (January 1, 2017) – GRID and Exelon conduct a survey to gauge success of first build-sites and
events. Meeting between leaders of both companies to measure impact..................................................... 11
   Step 7 (January 21, 2017) – Responding to public interest, begin to increase the number of build sites
in the Mid-Atlantic area ................................................................................................................................... 12
   Step 8 (September 1, 2018) – Analyze success of partnership and consider renewal of contract with
GRID Alternatives ............................................................................................................................................. 12
Raising Awareness for Sunrise ....................................................................................................................... 12
Brighten your community ................................................................................................................................. 12
Advertising Diversity: ..................................................................................................................................... 14
Sunrise will lift Our Community Up ........................................................................................................... 15
Sunrise will Raise Revenue: .......................................................................................................................... 16
  Raising Solar Power: ................................................................................................................................. 16
  Grid Alternatives’ Solar Expenses: .......................................................................................................... 17
  Exelon’s Revenue from Electric Bills: ..................................................................................................... 17
  Tax Incentives: ....................................................................................................................................... 18
Cost Projections: ....................................................................................................................................... 18
  Advertising: ............................................................................................................................................. 18
  All-Women Build Days: ............................................................................................................................ 18
Appendix A: Exelon ..................................................................................................................................... 19
Appendix B: The Mid-Atlantic is An Ideal Place to Implement Sunrise ..................................................... 20
Appendix C: Duke Energy ........................................................................................................................... 22
Appendix D: Exelon and GRID Alternatives’ efforts in Promoting Diversity ............................................. 23
Appendix E: SWOT Analysis ....................................................................................................................... 24
Executive Summary

**Purpose of this Report**
This report will assess Exelon’s current standing in the residential energy sector, identify steps to strengthen that position, and recommend a collaboration with the nonprofit organization GRID Alternatives that will benefit both Exelon and the communities it serves.

**Situation/Complication**
Since merging with Constellation Energy in 2012 and Pepco Holdings in 2016, Exelon has amassed the largest set of electricity assets in the United States. Exelon supplies over 10 million customers and generates over 35,000 megawatts of power.

However, Exelon is not taking full advantage of emerging market trends. Despite considerable investments in clean, sustainable nuclear energy, Exelon has yet to take full advantage of the exponential growth of renewable energy sources.

Investments in solar, wind, and hydroelectric technologies should be at the forefront of Exelon’s strategy to remain at the forefront of the energy industry. Of these three, Exelon has made the least progress with solar energy, and should seek opportunities for growth in this field.

**Sunrise Initiative**
Partnering with the nonprofit organization GRID Alternatives is the next step to reestablishing Exelon’s status as a leader in both innovation and civic engagement. GRID Alternatives is the largest nonprofit solar installer in the nation, bringing solar power to low-income households since 2001.

This collaboration will:

- Make Exelon the sole provider of solar systems for GRID Alternatives’ projects in the Mid-Atlantic region through December 2020.
- Supplement those customers with electricity provided by Exelon subsidiaries.
- Connect Exelon with GRID’s extensive network of volunteers.
- Using the Network of Exelon Women, establish a series of all-women build events known as “We Shine”, to encourage women to seize opportunities in the rapidly growing solar energy sector.

**Implementation**
To fully implement the Sunrise Initiative, we recommend Exelon follow these steps:

1. Finalize a 3-year partnership between GRID Alternatives and Exelon.
2. Advertise for applicants and volunteers across the region through local and social media.
3. Let GRID sort and choose the most viable build sites.
4. Publicize these projects as well as the “We Shine” women-only build days, highlighted by speeches by senior female Exelon employees.
5. Survey both volunteers and recipients to gauge success and adjust the model as needed.
6. Increase the number of build sites and We Shine events to meet demand until the partnership is subject to renewal.
Exelon wants to be the leading provider of renewable energy in the United States. It developed merging plans with other companies to make that possible. However, within a year of its merging with Pepco Holdings, Exelon had reported an unfortunate decrease in its customer number, and that is the opposite of what Exelon wants. The question we are trying to answer is how does Exelon combat those losses, and what new exciting plans should Exelon implement to propel forward? By forming a collaboration with GRID Alternatives, Exelon will be the sole provider of solar systems for GRID’s projects in the Mid-Atlantic region through 2020. Exelon will also enhance GRID’s workforce training program. These arrangements will deepen Exelon’s contribution to the community, and recapture its claim as the leading solar provider across the nation.

Dawn of a New Era
Through innovation and effort, Exelon is the largest electricity provider in the nation. The central tenet of Exelon’s mission, “providing reliable, clean, affordable and innovative energy products” (Exelon 2017) has been at the center of its growth. Its vast portfolio includes supplying power to roughly 10 million customers across 5 states as well as Washington D.C., controlling one of the largest electricity markets in the nation. Through acquiring both Constellation Energy and PEPCO Holdings, Exelon has become the primary energy supplier to more than 60% of the state of Maryland, as well as exerting considerable influence in the tristate area.

Against this backdrop, Exelon finds itself in an enviable position. By mid-2016, Exelon had burst into the Fortune 100, the only utility company capable of boasting such high impact. Exelon’s unmatched array of diverse energy sources represents the centerpiece of its prosperity.
Dark Clouds Ahead?

Despite over a decade of uninterrupted success, there are some signs of caution as Exelon looks to expand its already prodigious operations. In April 2016, one month after its merger with Pepco had been finalized, Exelon companies provided 66.4% of the residential electricity for the entire state of Maryland. As of March 2017, the last month for which data was publicly available, that number has decreased 5.5%, representing a loss of more than 330,000 customers. While Exelon’s dominance isn’t threatened, it should be proactive in recouping these losses.

The Future of Energy will be Cleaner, Cheaper, and Bright

While Exelon controls a healthy majority of the Maryland electric market, a careful eye towards current market trends calls for a course correction. Despite supplying power to over 3.65 million Maryland citizens, that dominance might not translate into revenue as directly as it has in years past. In 2016, electricity prices fell for the first time in 15 years. The expanding renewable energy sector is one of the driving forces behind this reversal, with projections from the Energy Information Administration (EIA) estimating exponential growth in both wind and solar. As consumers search for a more diverse array of sources to meet their energy needs, Exelon would see significant upside in expanding its operations in either of these renewables.

Relying on its already impressive utility assets, Exelon doesn’t need to make wholesale adjustments to its existing business model. However, shrewd, forward-looking investments will go a long way towards maintaining Exelon’s position at the front of the pack.

U.S. residential electricity prices decline for the first time in many years

Pepco and Constellation demonstrate Exelon’s commitment to staying at the forefront of the energy industry. That, combined with its purchase of John Deere Renewables – an $860 million purchase representing over 700 Megawatts of clean, wind energy – in 2010 shows that Exelon understands the value of renewable energy. But Exelon has yet to fully embrace solar power, the renewable energy source projected to show the most growth over the next several years.

The successful acquisitions of
Solar’s Bright Future

Part of the EIA’s newest publicly available data estimates that from 2017-2018, the amount of electricity generated by residential solar panels is set to grow a massive 53% in the United States. With their previous experience building such pioneering facilities as the Antelope Valley Solar Ranch and Chicago’s cutting-edge City Solar installation, Exelon is well positioned to use its technical knowledge and experience to capitalize on these opportunities for growth.

No longer confined to the sun-soaked Southwest, a drastic reduction in the cost of photovoltaic (PV) solar systems over the last several years has spurred a period of unprecedented growth in the solar industry. This steep decrease in price has been driven by a combination of factors; increased demand for PV solar systems, diminishing cost of materials, and tax incentives.

According to a February 2017 report from Greentech Media, installation of PV solar panels grew over 95% last year from its previous record in 2015, signaling how demand in the United States continues to grow at a tremendous rate. Although they could not predict the incredible rate of expansion, this growth was partially foreseen by industry experts back in 2008. That’s when the production of pressed silicon, the active material in PV solar panels finally began to rise to meet demand (Bullis, 2008).

Finally, as part of the Energy Policy Act of 2005, the federal government implemented a 30% investment tax credit designed to help spur solar growth in both the commercial and residential sectors (ITC FACT SHEET, 2016). For the average 6 kWh (kilowatts per hour) home system, the cost has fallen dramatically, from $52,920 in 2007 to just $20,160 today (Matasci, 2017). These trends have helped turn residential solar energy into one of the fastest-growing segments of the energy market.

Figure 4: New York Times

Figure 5: NREL
GRID Alternatives: The Largest Nonprofit Solar Installer in the Country

GRID Alternatives is the nation’s largest non-profit solar installing organization, dedicated to helping low-income families gain access to renewable energy and services. Founded in 2001, GRID Alternatives quickly expanded, while making meaningful collaborations to help families in need.

Free Installation of Solar Panels
GRID Alternatives’ primary service is to provide qualifying low-income families with free installation of solar panels which will effectively reduce much of their electricity bills in the long haul (GRID Alternatives, n.d.).

These installation services help families spend their income on other necessities and ease their financial burden. Median income families often use up to 3-4% of their earnings on power needs. However, despite low-income families spending similar amounts on their electricity bills, those bills represent a much higher percentage of overall income. Therefore, by reducing electricity bills, the burden imposed on low-income families will be significantly less, as they will be able to save up more of their income for the future (Duggan, 2016).

Training the Workers of Tomorrow
In the last year, solar employers added roughly 25 percent more jobs. However, as the number of jobs increases, so does the prerequisite skills need to take advantage of them. It is unquestionably tremendously difficult to land a job without the mastery of proper skills in the industry (Bessen, 2014).
In order to solve the problem, especially in the solar energy industry, GRID Alternatives provides hands-on training program for volunteers. Through this workforce development program, volunteers at GRID Alternatives will be able to master the skills required and essential in the solar energy industry. After finishing the training program, they will have a much better chance at securing a job in the industry. Though the labor market is slow at the moment, solar energy industry quickly expands and can reduce the unemployment for trained individuals (Grid Alternatives, n.d.).

Women’s Bright Future in Solar

To create a sustained and balanced working environment, GRID Alternatives believes that every woman interested in working in the industry deserves to be respected equally as their male counterparts. They
do not need to have experiences to volunteer. Like everyone in GRID Alternatives, they can use the skills learned through volunteering to apply for more demanding jobs in the industry (GRID Alternatives, n.d.).

Rising Up with Partners across the United States

After several successes in helping its communities, more companies have showed interest in working with GRID Alternatives closely to help more low-income families in the area. Its success has allowed it to partner with a diverse array of partners, including Wells Fargo, Facebook, AmeriCorps and cities across the continental United States.

Through a partnership with AmeriCorps in 2012-2015, GRID Alternatives was able to provide solar power to 3,000 households while simultaneously training over 4,500 low-income individuals for skills required in the solar energy industry (Corporation for National and Community Service, 2012).

Recently, GRID Alternatives partnered with Facebook to serve families outside of GRID’s normal coverage areas. This collaboration, along with its other installations will save approximately $285,000 in energy bills over the lifetime of these systems. Such installations also help to prevent greenhouse gas emissions, the equivalent of planting over 10,000 trees. The more companies that want to help GRID achieve its mission, the more low-income households will be able to benefit (Kelly, 2017).

Finally, in 2015, GRID’s partnership with SunEdison concluded with the advent of a two-year initiative called RISE to match an industry that needs skilled workers to communities that need jobs. This initiative will also help the country to have a solar workforce that can develop the industry itself (PR Newswire, 2015).

Rise of Profitability

From 2011 to 2014, GRID Alternatives brought in an average of $19.7 million annually, 91% of which went towards functional expenses. As GRID gains fame over these years, it has seen an increase in the donations made by the people and organizations supporting its cause. In 2014, donations made up 20.9% of GRID’s revenue, whereas in 2015, donations made up a substantial 35.5% of GRID’s revenue which allowed them to spend more on functional expenses (ProPublica, 2017).
Sunrise will let Exelon Rise above the Competition

Three-years of Sunrise

GRID Alternatives is a dynamic nonprofit, bringing solar powered electricity to low-income families. Cooperating with GRID Alternatives, Exelon could distribute energy efficiency for people in need as well as strengthen Exelon’s grip on the market. Based on the areas where Exelon and GRID are both operating, the potential services Exelon could provide, and the values shared between both organizations, Exelon should provide new services in Mid-Atlantic. By operating through the Mid-Atlantic, Exelon and GRID will gain more customers and promote their organizational values by providing an electric service combining solar installations and electricity delivery and establishing all-women build days.

Combining Solar Installations with Electricity Delivery

Exelon owns six different energy delivery companies, five of which primarily serve the Mid-Atlantic region. GRID Alternatives also has an affiliate in the Mid-Atlantic, already providing the benefits of solar energy to underserved communities in Maryland, D.C., Virginia, and Delaware. To increase the impact of these two organizations, Exelon should become the sole provider of solar systems for GRID Alternatives in the Mid-Atlantic region and partner with GRID to serve more low-income households.

After reaching out to one of the past solar panels manufacturing partners and getting solar panels in low costs, Exelon could use a two-pronged approach to generate revenue: leasing solar panels to qualified families, then supplementing the rest of the electricity they need with traditionally generated electricity. By investing in the solar project, Exelon will take advantage of the Solar Investment Tax Credit. Exelon could deduct 30% of the amount of investment in solar property through 2019; then the ITC steps down to 26% in 2020 and 22% in 2021 (seia.org). Considering that after 2020, the commercial and utility credit will fall below 26%, we, Exelon should implement a 3-year contract agreement with GRID Alternatives from August 2017 to December 2020.

We Shine

Both Exelon and GRID value a diverse and inclusive workplace. GRID Alternatives has experience in maintaining a diverse workforce, holding all-women’s solar installation, and providing some training programs for female aspirants. With this Collaboration with GRID Alternatives, Exelon could do a better job in promoting diversity in the energy industry.

During the volunteer recruiting process, Exelon and GRID will focus on inviting female volunteers to participate in all-women build day. On that day,
only women will work on the rooftops, and one of the Exelon’s Employee Resource Groups, the Network of Exelon Women (NEW), will bring skilled female employees to share their experiences and the enormous contributions they’ve made at Exelon and throughout the energy industry, with volunteers. After the speech, Exelon will distribute pink hard hats to volunteers. The pink hard hats will build an iconic image for this event and change the stereotypical image of a man in a hard hat.

How Exelon will bring Sunrise to the Maryland Community

Step 1 (August 1, 2017) – Initial Meeting between GRID Alternatives and Exelon.

For Sunrise to form, the two companies must first meet in person. This first meeting will take place at Exelon headquarters in Chicago, Illinois. In the first session, the leaders of each company will be in attendance. For Exelon, this includes Amy E. Best (chairman of the HR department), Maggie Fitzpatrick (director of the Communications department), and Calvin G. Butler Jr. (executive officer of Baltimore Gas & Electric) (“Leadership and Governance”). For GRID, this includes Erica Mackie (CEO and co-founder), Tim Sears (COO and co-founder), and Zach Franklin (Chief Strategy Officer) (“GRID Alternatives”).

The initial meeting will allow for a relationship to establish between the two parties. Through establishing this connection, the two companies can gauge its level of interest allowing each side to determine whether to proceed with Sunrise or not. At this initial meeting, the specific details of the agreement can remain unknown. By limiting the discussions to the main idea, the two companies can maintain its focus on Sunrise’s primary goal to help Exelon progress within the solar industry. Both sides must agree on Sunrise by September 1, 2017, to proceed. When both sides agree to move forward with the connection, Sunrise will finalize.

Step 2 (September 1, 2017) – Finalize a three-year partnership between GRID and Exelon; Begin discussions with Exelon’s Mid-Atlantic Division to proceed with partnership.

After each side approves of moving forward with Sunrise, the finalization of the specific details will happen. These specific details include: a three-year partnership between GRID and Exelon, Exelon becoming the sole provider of solar panels for GRID build-sites, GRID begins constructing more build-sites in the Mid-Atlantic region for Exelon customers, and the expansion of GRID and Exelon’s women in solar programs. The “Plan” portion of our report contains these specific details.

At this meeting, GRID will meet with the leaders of Exelon’s Mid-Atlantic region to begin the necessary implementation steps. For Exelon, this includes Calvin G. Butler Jr and David Velasquez (CEO of Pepco). These two men play a significant role in Exelon’s principal subsidiaries in the Mid-Atlantic region. After each party signs the dotted line, the time has come to start promoting this new partnership.
Step 3 (September 15, 2017) – Begin advertising and bringing awareness to the new partnership established between GRID and Exelon.

For this new partnership to gain traction in the Mid-Atlantic region, Exelon and GRID will form a highly successful communications team comprised of members from Exelon’s communications department and Exelon’s HR department. Maggie Fitzpatrick (head of Exelon’s Communications department) will take command of this program. She will play an integral role in the development of this staff, while also guiding them throughout the process of advertisement (“Maggie Fitzpatrick”).

First, the staff will send out an email to existing Exelon customers to gauge their interest in Sunrise. This email will discuss the business, while also bringing awareness to the benefits of using solar energy. Then, the staff will start a full-fledged advertising program to gauge interest from potential new customers. Through Exelon’s and GRID’s social media accounts, the staff has an easy way to reach many of its current and future clients. This free form of advertisement allows for the team to focus its budget on other means of advertising. Next, the staff will take an ad out of the Baltimore Sun. By making use of the Baltimore Sun’s reach, Sunrise will be able to gain significant traction in the Mid-Atlantic region.

Through bringing more awareness to the principal goals of this relationship, Exelon wants more of its customers to become interested in switching to solar energy. After four weeks of advertising, the team will collect responses from Exelon customers, and determine which customers want to switch to solar. When the staff receives fifty to one hundred interested customers, GRID will begin to determine which sites are viable to receive solar energy.

Step 4 (October 15, 2017) – GRID determines most viable candidates of Exelon customers.

GRID will have total control in determining which customers are viable to receive solar energy. Led by Anna Bautista (the Vice-President of Construction and Workforce Development), GRID has a specific way to conduct this process.

First, GRID will perform a site visit where GRID employees will inspect the customer’s roof, taking measurements and photos to ensure the home can use solar energy. If the home can use solar energy, GRID will start designing a solar system unique to each house. Upon competition of the concept, a GRID Outreach Coordinator will contact the family to schedule a date for installation. Before the installation process, all paperwork must be signed and completed.

This entire process typically takes several weeks or more (“GRID Alternatives”). If a significant amount of Exelon customers become interested in switching to solar energy, this process can take around one to two months. GRID wants to ensure that each client receives the full attention he or she deserves, while also making sure that each solar system receives the proper time for design. Once five to ten potential sites are determined, GRID can start conducting build-sites at these selected locations.
Step 5 (November 15, 2017) – GRID and Exelon construct build-sites at GRID determined locations.

After GRID determines viable build-sites, Exelon can begin to publicize the effects these sites will have on the community. Through connections within the community, Exelon will have endless opportunities, through social media, local news stations, and local newspapers, to promote these first builds. Due to its positive reputation, Exelon can take advantage of this no-cost form of publicity.

At first, the builds will only take place once or twice a month to gauge the interest of volunteers at the build-sites. Once these build-sites start to grow in popularity, the construction of these events will begin to occur more frequently. Also, one of the first build-sites will be an all-women build-day. This day will help publicize the work of women within the solar industry. At this event, volunteers will wear pink hard hats, and a keynote speaker, Tamla Olivier (President, and CEO of BGE HOME and Constellation Home), will be in attendance. Her speech will promote women in the solar industry, while also discussing the network of Exelon women ("Tamla Olivier").

By having a day set aside to support women in the solar industry, Sunrise aims to increase the number of female volunteers associated with the build-sites. Also, through publicizing this event, GRID and Exelon hope that women realize the benefits that come with working in the solar industry. To recognize the benefits these sites have in the community, Exelon and GRID will conduct a survey on-site and through the mail to receive feedback on what went well and what it can improve upon at future sites. If Exelon receives enough positive feedback, it will signify readiness to start increasing the number of build-sites in the Mid-Atlantic area.

Step 6 (January 1, 2017) – GRID and Exelon conduct a survey to gauge success of build-sites. A meeting will occur between leaders of both companies to measure impact.

After the completion of the first build-sites, the communications staff, led by Maggie Fitzpatrick, will send out to all volunteers who participated at the worksites and to all Exelon customers. This survey will consist of questions regarding: How successful the first build went; what improvements can happen at the build-sites; what went well at the build-sites; What Maryland residents want to receive from the partnership, etc. This survey will not only provide great feedback to improve the future of the build-sites, but it will also allow for GRID and Exelon to build a database of volunteers for future build-sites, as well as a database of potential Exelon customers who want to make the switch to solar energy.

Having this database will make it easier for the partnership to conduct more build-sites in the future. When Exelon receives around a 20% response rate, they will have a comprehensive database for future use. Also, Erica Mackie (CEO of GRID) will meet with Calvin G. Butler Jr. (president of BGE) to evaluate the success of the partnership. By looking at the impact the partnership has on the community, these two leaders can determine how successful the organization has become.
For success, the partnership will help increase the number of volunteers, who work with GRID in the Mid-Atlantic area, will increase the number of homes in the Mid-Atlantic region with solar energy, and will enhance the interest of women in solar energy. By meeting these benchmarks, Sunrise will be labeled successful and continue its mission. (Need more specific numbers).

**Step 7 (January 21, 2017) – Responding to public interest, begin to increase the number of build sites in the Mid-Atlantic area**

If interest still exists in Sunrise, the number of build-sites will increase gradually. GRID will start conducting more on-site visits to determine more viable locations, while Exelon starts promoting more special work-day events. The number of build-sites will increase to once a week allowing for more Exelon customers to switch to solar energy. Also, the number of unique work-day events will increase to once a month. These events will focus on increasing the interest of women and veterans in the solar industry. For success, Sunrise will supply two hundred families with solar energy in the Mid-Atlantic area and hold thirty special events that focus on women in the solar industry. These events will continue to occur up until the contract between the two companies is up for renewal (September 1, 2019).

**Step 8 (September 1, 2018) – Analyze success of partnership and consider renewal of contract with GRID Alternatives**

After two years, the contract between GRID and Exelon will be up for renewal. If the companies want to renew Sunrise, Exelon needs to look at the trends in the solar federal tax credits. If these tax credits continue to decrease, there is no incentive for Exelon to continue this partnership. If these tax credits stay the same, Exelon should look at how much success the business achieved. If Sunrise reached its goal of increasing the number of GRID volunteers in the Mid-Atlantic area, increasing the number of homes using solar energy in the Mid-Atlantic area, and enhancing the interest of women in solar energy, Exelon will strongly consider renewing the partnership between the two companies.

**Raising Awareness for Sunrise**

GRID has yet to install many solar systems in the Mid-Atlantic. Compared with 8295 systems installed in California, there are just 121 systems installed in Maryland, D.C., Virginia and Delaware and 96 systems installed in the New York Tristate (gridalternatives.org). It is important to raise public awareness of Exelon’s partnership with GRID Alternatives in the Mid-Atlantic.

To attract more families and volunteers to participate in the campaign, Exelon will make sure what to publicize and what platform we use when advertising. Knowing what to include in the commercials could help us have an idea of why this campaign could satisfy customers’ needs. After providing information that is relevant to their interests, Exelon will use stories to call for action.

**Brighten your community**

1) **Brighten low-income households**
Low-income families will save electricity by paying low-to-no fees. Because of the nature of solar power, the only costs associated with these solar systems will be the cost of installation. Partnering with GRID, Exelon takes away the high upfront cost for homeowners by providing third-party-owned panels. Homeowners will receive the benefits of the system, including 50-90% of their energy needs, system maintenance and service warranty during the leasing period (gridalternatives.org). Moreover, according to a recent study from the Lawrence Berkeley National Lab (LBL), buyers are willing to pay more for homes with rooftop solar panels. A home with solar will sell for about $15,000 more outside of CA, and $20,000 more in CA (energysage.com).

2) Brighten volunteers

Volunteers will be trained by GRID and receive hands-on experience installing solar panels. GRID invites all people who are interested in solar to participate in the installations. No experience is needed. Volunteers could gain more skills and therefore, access more solar job opportunities. Based on the installation experience, volunteers could have a better understanding of working in the solar industry. The solar industry has more and more jobs created these years. During 2016, the solar industry creates the most jobs (373,807 jobs) among all the clean energy, and employed more Americans than the coal industry (160,119 jobs) (Popovich, 2017). Moreover, while other energy act as important employers in some states, solar has jobs across the country. If low-income families need jobs, they could consider launching careers in this booming industry.

![Image: Figure 13: New York Times](image)

3) Stories brighten potential participants

Emotions are the primary reason why consumers prefer brand name products, and emotional responses to ads are more influential on a person’s intent to buy than the content of the ads (Murray, 2013). Stories about low-income participants and the power of women could be moving, inspirational, and positive. Stories could talk about how people change their lifestyles by leasing solar panels, how to pursue careers in the energy industry, and how women challenge themselves by learning in STEM fields.

The best and most celebrated ads have always been those that tell great stories because the best creatives know the key to winning over consumers is to share stories that are worthy of their time (Donation, 2016). By providing solar panels to low-income families, holding events to promote our values of woman power and bringing volunteer opportunities to more areas in the Mid-Atlantic, Exelon will have lots of stories available to share with our audiences.
Advertising Diversity:

1) Social Media Platforms

Exelon and GRID will use its pre-existing social media platforms to connect with their current customers. Exelon has 63,889 followers on LinkedIn, 14,900 followers on Twitter, while GRID Alternatives has 4,881 followers on LinkedIn, 5,606 followers on Twitter, and 9,670 followers on Facebook. Exelon will reach out to other relevant social media accounts on Facebook and Twitter to post only memorable stories.

We will also post storytelling video commercials on YouTube. Although by 2017, video content will represent 74% of all internet traffic, there are still 4 times as many consumers would prefer to watch a video about a product rather than reading about it (Sternberg, 2017)

2) Local Newspaper

For campaign held in Baltimore, Exelon could post an ad on Baltimore Sun Newspaper. It reaches 368,084 readers daily, 706,617 readers on Sunday and 55% of all the readers are female.

To post ads to more customers in Mid-Atlantic, Exelon could work with the MACnet Networks which are comprised of member publications of the Mid-Atlantic Community Papers Association and publications who don’t qualify for membership yet provide coverage in areas where the Association does not have members. There are different networks Exelon could choose to post ads. If Exelon chooses to post ads to the full networks, we could reach up to 4.9 million readers in weekly, bi-weekly and monthly publications in Pennsylvania, Ohio, New York, New Jersey, Delaware, Maryland, West Virginia, Virginia, and Washington DC (macnetonline.com).

3) Local TV

The Small Business Administration found that one 30-second television commercial during prime time (8 p.m. to 11 p.m.) can cost 10 to 30 times more than one radio spot during drive time (which is considered prime listening time) or a full page ad in the newspaper (Aland, 2016). However, TV ads could reach a large audience. According to a study by MarketShare, advertising on TV yields the highest return on advertising spend (Aland, 2016). TV could promote our campaign both with sight and sound, therefore, could better present the stories we collect from the campaign in memorably.
Sunrise will lift Our Community Up

As GRID brings electricity and excitement to our customers, the success of this partnership will be measured in several tangible ways. Each set of benchmarks will address a different facet of the partnership, comprehensively demonstrating the dynamic, wide-ranging impact of this compelling team.

**GRID Power:**

- Electricity generated (kWh)
- New customers brought in
- Percentage of market share gained
- Number of solar panels installed

**Family Power:**

- Number of applicants
- Number of volunteers
- Number of families with access to clean, affordable energy

**Women Power:**

- Number of all-women build days
- Number of volunteers partnering with Network of Exelon Women
- Number of Exelon executives/technicians participating in NEW

**Leadership Power:**

- Other companies following our lead
- Positive press
- Increased public awareness about solar opportunities
Sunrise will Raise Revenue:

Currently, people’s awareness of renewable energy brings interest into this new potential energy market. Since 2006, the use of renewable energy has increased rapidly. Being an important part in renewable energy, solar has experienced an average annual growth rate of 68% (SEIA.ORG). In recent years, there has been a rapid increase in solar installations. (SEIA.ORG). However, solar energy only occupies about 1% of Exelon’s total providing energy (Exelon Corporation Twitter). With its low position in the solar market, Exelon has major potential within the solar energy market. Collaborating with Grid Alternatives, the biggest solar systems installation non-profit organization in the United States, will bring a new opportunity to Exelon to explore in the solar energy market.

Raising Solar Power:

Since 2014, Grid Alternatives has provided solar system installation service for low-income family in Mid Atlantic. The number of solar systems installed by Grid alternatives has increased rapidly. From 2015 to 2016, the number of solar systems installed by Grid Alternatives grew by 25%. Since Sunrise will begin in August 2017, and we plan to hold a series of events to strengthen collaboration, Grid Alternatives will receive more publicity and heighten the growth rate of solar systems installed. We project that Grid Alternatives will install 75 solar systems in Mid Atlantic in 2018.

Based on the report of Exelon’s Antelope Valley Solar Project, Exelon spent $1.3 billion on constructing 3.86 million solar panels. They average 8 pieces of solar panels for one solar system, so the price is
$2,863 for one solar system. From our estimation, the material fee for one solar system should be about $2,000. Thus, we suggest the price of solar panels should be $3,000 for one solar system. Through this partnership, Exelon will be the sole solar panel provider in Mid Atlantic. From this information, we can project Sunrise will bring $225,000 revenue and $75,000 profit to Exelon.

<table>
<thead>
<tr>
<th>Solar Systems Installed</th>
<th>EXELON</th>
</tr>
</thead>
<tbody>
<tr>
<td>2013</td>
<td>0</td>
</tr>
<tr>
<td>2014</td>
<td>10</td>
</tr>
<tr>
<td>2015</td>
<td>40</td>
</tr>
<tr>
<td>2016</td>
<td>50</td>
</tr>
<tr>
<td>2017</td>
<td>60</td>
</tr>
<tr>
<td>2018</td>
<td>75</td>
</tr>
</tbody>
</table>

*Table 1: Projected Number of Solar Systems*

Grid Alternatives’ Solar Expenses:
Based on Grid Alternative’s 2016 financial report, Grid Alternatives spent $3308.8 on one solar system. In the contract, Grid will buy solar panels from Exelon for the price of $3000. Thus, it will save $23,160 in construction materials fees for Grid in 2018.

<table>
<thead>
<tr>
<th>Grid Alternatives</th>
<th>EXELON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Quantity</td>
<td>75</td>
</tr>
<tr>
<td>Price</td>
<td>$3,308.8</td>
</tr>
<tr>
<td>Total Costs</td>
<td>$248,160</td>
</tr>
<tr>
<td>Total Saving Costs</td>
<td>$23,160</td>
</tr>
</tbody>
</table>

*Table 3: Projected Solar System Expenses*

Exelon’s Revenue from Electric Bills:
The Average residential electricity bills in Maryland are $129 per month. In our contract, Exelon will supply the rest of electricity that can’t be covered by solar energy. After the installation of solar systems by Grid Alternatives, a family can save around 50% of its electricity bills. Thus, the collaboration will increase $58,050 of revenue per year for Exelon by supplying the rest of electricity the family needs.

<table>
<thead>
<tr>
<th>Number of families</th>
<th>75</th>
</tr>
</thead>
<tbody>
<tr>
<td>Electric Bill before</td>
<td>$129.0</td>
</tr>
<tr>
<td>Saving Rate</td>
<td>0.5</td>
</tr>
<tr>
<td>Electric Bill After</td>
<td>$64.50</td>
</tr>
</tbody>
</table>
Revenue per Month | $4,837.50  
Revenue per Year | $58,050  

*Table 4: Projected Household Savings*

**Tax Incentives:**

Based on ITC tax policy, Exelon will save 30% of costs in solar energy due to tax credit. In 2017, its investments in solar energy will save $36,000 in tax credit. This will allow Grid Alternatives to expand its future operations. The tax credit will allow for more savings with the increasing solar panels installed. By the end of the collaboration with Grid Alternatives in 2020, it will bring a $52,000 tax credit to Exelon.

<table>
<thead>
<tr>
<th>Year</th>
<th>ITC</th>
<th>Tax Credit</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017</td>
<td>30.00%</td>
<td>$36,000</td>
</tr>
<tr>
<td>2018</td>
<td>30.00%</td>
<td>$45,000</td>
</tr>
<tr>
<td>2019</td>
<td>30.00%</td>
<td>$51,000</td>
</tr>
<tr>
<td>2020</td>
<td>26.00%</td>
<td>$52,000</td>
</tr>
</tbody>
</table>

*Table 5: Projected Tax Credit Savings*

**Cost Projections:**

**Advertising:**

In order to receive more publicity, we plan to advertise the All-Women build day in the Baltimore Sun newspaper. It will cost $300 to public the announcement for 30 days in both the newspaper and in its online website. With its reading audience reaching a million people every week, we believe that about 2% people will become more aware about the announcement. Thus, about 80,000 people will become more aware of the Sunrise events.

**All-Women Build Days:**

In the future collaboration, we will hold All-Women Build Days once for two months. In total, it will cost $1440 per year. For the ceremony of collaboration, it will total cost $1950.

<table>
<thead>
<tr>
<th></th>
<th>Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pink Hard Hats</td>
<td>$900</td>
</tr>
<tr>
<td>Transportation Subsidy</td>
<td>$240</td>
</tr>
<tr>
<td>Meal Subsidy</td>
<td>$300</td>
</tr>
</tbody>
</table>

*Table 6: Projected Annual Costs of Women Build Days*

<table>
<thead>
<tr>
<th></th>
<th>Total Costs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decoration</td>
<td>$1,000</td>
</tr>
<tr>
<td>T-shirts</td>
<td>$250</td>
</tr>
<tr>
<td>Meals</td>
<td>$400</td>
</tr>
<tr>
<td>Cleaning Fee</td>
<td>$300</td>
</tr>
</tbody>
</table>

*Table 7: Projected Event Costs*
Appendix A: Exelon

Background
Exelon is a fortune 100 energy company headquartered in Chicago, Illinois. Exelon formed through the merger of two major energy companies, Peco Energy Company of Philadelphia and Unicom Corporation of Chicago. It hoped that the merger would reduce consumer prices as more states tried to make its utility more competitive to gain market power. Exelon currently employs about 34,000 people and operates in 48 states in the United States (Salpukas, 1999).

Exelon family of companies
Exelon represents a huge family of companies that address every step of the energy process. In total, it has approximately generated more than 30,000 megawatts of energy to other fortune 500 energy companies (Exelon, n.d.).

Prevailing Market Leader
Exelon is undoubtedly a leader among energy companies. Recently, Exelon has produced energy plants that have significantly lower carbon dioxide emission than the national average. Exelon is so far ahead of its contemporaries that it produces barely a sixth of the carbon dioxide emission of its closest competitor. Many companies are following Exelon’s leadership to succeed in the industry (Marshall, 2017).

Collaboration with the Community
To reinforce its dominance in the market, Exelon recently donated a large sum of money to local universities to improve their standard of admittance. This donation will allow for Exelon to hand pick the best students from these schools to join the Exelon family upon graduation (Tillman, 2017).

Since 2014, Exelon formed a partnership with ComEd to provide high school students from minority communities the opportunity to enroll in engineering courses at University of Illinois at Chicago’s chance program. This program allows for high school students to better prepare themselves before they attend universities. Also, this program provides high school students the opportunity to win a scholarship, so that they can unleash their fullest potential and contribute back to the community.
Appendix B: The Mid-Atlantic is An Ideal Place to Implement Sunrise

**Exelon’s Operation**
Among six delivery companies of Exelon, five mainly provide services in Mid-Atlantic. The chart below shows the number of electric customers each company has and their service map.

<table>
<thead>
<tr>
<th>Delivery companies</th>
<th>Atlantic City Electric</th>
<th>BGE</th>
<th>Delmarva Power</th>
<th>PECO</th>
<th>PEPCO</th>
</tr>
</thead>
<tbody>
<tr>
<td>Number of electric customers</td>
<td>545,000</td>
<td>1,250,000</td>
<td>500,000</td>
<td>1,600,000</td>
<td>842,000</td>
</tr>
</tbody>
</table>

**Service Map**
Resources: Exelon companies’ websites

**March in Philadelphia**
Members of Earth Quaker Action Team, pictured left, march into PECO headquarters, to demand the utility to purchase solar power from North Philadelphia on March 2016.

However, PECO claims that they are not aware of any solar power available in North Philly, while actually a company called Serenity Soular has installed some solar panels there (Parry, 2016).
**Solar-friendly Philadelphia**
Recently, Philadelphia government decided to support solar panel installation and create 10,000 green jobs in the next 10 years.

On April 27, 2017, City Council announced a program (Solarize Philly). It aims at getting solar installations at below-market cost to homeowners by the end of 2018 and to create 75 jobs. There is also a job-training component for students interested in solar installation as a career.

**Solar Power in Maryland**
Maryland’s Renewable Portfolio Standard requires that 2% of the state’s energy come from solar, or about 1,200 MW, by 2020 (Solar Energy Progress, 2016)

As of late December 2013, Maryland had ~ 158 MW of installed. This leaves Maryland poised to expand its solar capabilities 10 times over in the coming years.

Maryland’s poverty rate is 9.7%, meaning there are over 580,000 people whose lives can be changed by the combination of Exelon and GRID Alternatives (Maryland Report - 2016, 2016)
Appendix C: Duke Energy

Duke Energy Renewables
Duke Energy owns and operates approximately 500 megawatts of photovoltaic solar power projects at more than 50 solar plants across the country and has invested almost $5 billion to grow its wind and solar power businesses since 2007 (Duke Energy website).

Support Nonprofit Organization
Duke Energy has already contributed $2 million to Palmetto Clean Energy (PaCE), a nonprofit organization that promotes the development of renewable energy resources. Duke and PaCE provided grants to schools and other educational facilities interested in installing rooftop solar systems. (Duke Energy News Center)

Solar Rebate Program
Duke Energy, as a main competitor of Exelon, started the Solar Rebate Program in South Carolina in 2015. The rebates help with the upfront cost of installing solar panels for customers. It provides a $1/watt-dc for residential customers who install systems up to 20 KW-ac, and for business customers who install systems up to 1 MW-ac (Walton, 2015).

By December 22, 2016, Program has helped more than 1,800 residential customers and 125 business customers with upfront costs of installation (Duke Energy News Center). Moreover, Duke adopted the net metering incentive. It allows customers to receive 1:1 retail credit for excess energy they produce from their solar installations through 2025 (Downey, 2015)
Appendix D: Exelon and GRID Alternatives’ efforts in Promoting Diversity

GRID Alternatives has experience in maintaining diverse workforce and providing training program for female aspirants. Collaborate with GRID Alternatives, Exelon could do a better job in promoting diversity.

- **2014**: Won a $1.2 million grant from SunEdison Inc. to help get women on rooftops (Mulern, 2016).
- **Aug, 2016**: Launched the first Women in Solar training program (Abdelhamid, 2016).
- **Dec, 2016**: Signed the White House’s Equal Pay Pledge to close the national gender pay gap (White House Gov.).
- **Mar, 2017**: Host its first all-women’s solar build in the Mid-Atlantic region (Mishrener, 2017).
- **Jul, 2017**: In its seventh year, the 2017 Diversity and Inclusion Honor Roll recognizes the service partners’ work in 2016 to include women, people of color and other diverse groups in key roles on Exelon’s account teams (Exelon website).

Timeline: Efforts Made by Exelon and GRID Alternatives
Appendix E: SWOT Analysis

**Strengths**

1. Have five electricity delivery companies operating in the Mid-Atlantic region
2. Our Network of Exelon Women could provide skilled female to share experience on all-women build days
3. Have partnered with SunPower and other solar panel manufacturers to build Exelon’s solar plants, which could help us to buy solar panels at a lower cost

**Weaknesses**

1. Lack of Exelon’s female employees to share their experience on all-women build day
2. Exelon has only grazed the surface of what it can do with renewable energy, which leads to the lack of experience in the solar industry
3. It is hard for Exelon to further expand this program with GRID Alternatives to other regions, because five of its six utility companies are operating in the Mid-Atlantic

**Threats**

1. The number of low-income families is limited in the Mid-Atlantic which will lead to a lack of applicants
2. Some low-income families rent a house instead of owning a house, and they couldn’t be able to apply for this campaign which leads to a decrease of applicants
3. Lack of volunteers to work on the rooftops
4. Lack of female volunteers to participate in all-women build days
5. Compared with wind energy, solar system need more employees to do the maintenance. Moreover, those solar panels on different families’ rooftops instead of in a solar plant will incur more maintenance costs

**Opportunities**

1. GRID Alternatives has utility partners who could reduce energy cost for low-income families and solar panel
2. Recently, Philadelphia government decided to support solar panel installation and create 10,000 green jobs in the next 10 years
3. On April 27, 2017, City Council announced a program (Solarize Philly). It aims at getting solar installations at below-market cost to homeowners by the end of 2018 and to create 75 jobs
4. Maryland’s Renewable Portfolio Standard requires that 2% of the state’s energy come from solar, or about 1,200 MW, by 2020
Works Cited


