BLDGScout Design Brief

Team Harness

Enrique Barcenas, Jessica Eiermann, Anne Lebold, & Brian McDonald
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>A Brief History of BLDGScout</td>
<td>3</td>
</tr>
<tr>
<td>Original Application &amp; Value Proposition</td>
<td>3</td>
</tr>
<tr>
<td>Current State</td>
<td>5</td>
</tr>
<tr>
<td>Regulation</td>
<td>6</td>
</tr>
<tr>
<td>Problem Statement</td>
<td>8</td>
</tr>
<tr>
<td>Central Idea</td>
<td>9</td>
</tr>
<tr>
<td>Product Outline</td>
<td>10</td>
</tr>
<tr>
<td>Proposed Solution</td>
<td>11</td>
</tr>
<tr>
<td>Why Users Will Use Our Product</td>
<td>14</td>
</tr>
<tr>
<td>Business Case</td>
<td>15</td>
</tr>
<tr>
<td>Competitive Analysis</td>
<td>16</td>
</tr>
<tr>
<td>Design Process</td>
<td>17</td>
</tr>
<tr>
<td>Conclusion</td>
<td>18</td>
</tr>
<tr>
<td>Appendix A</td>
<td>19</td>
</tr>
<tr>
<td>Appendix B</td>
<td>23</td>
</tr>
<tr>
<td>Appendix C</td>
<td>24</td>
</tr>
<tr>
<td>Appendix D</td>
<td>25</td>
</tr>
<tr>
<td>Appendix E</td>
<td>29</td>
</tr>
</tbody>
</table>
A Brief History of BLDGScout

BLDGScout, LLC (BLDGScout) is a software company created by students at Case Western Reserve University (CWRU). The company was incorporated in 2013 and was awarded funding that same year through the US Department of Energy Building Technologies Office - Building Innovators Fellowship. The team is comprised of Shariq Ali and David Buckmaster while both were students at CWRU. Experts from the Building Technologies Office as well as industry specific advisors in lean start-ups, cell phone app creation, and technology have helped to support and advise BLDGScout throughout its existence.

BLDGScout seeks to use its software create a positive relationship between utility companies and their customers through daily interactions via its app “enpower.” BLDGScout has partnered with a small utility company to run a pilot, however, the company is still looking for more utility companies to run pilot tests with.

Original Application & Value Proposition

BLDGScout has two products: enpower and the cloud software engine. BLDGScout’s app, enpower, encourages behavior modification in users by sending notifications to their smartphones with tips and information on how to more efficiently consumer energy. Enpower measures the effects of the changes in consumption in terms of dollars, trees, and other metrics, which the app communicates with the user. Examples of notifications include opening or closing curtains and windows, adjusting the thermostat, or using fans instead of your air conditioning.

The software is designed to engage users through its simplicity and ease of use. Also, enpower is “white-labeled” which means that it is ready for client branding. Enpower is compatible with both iOS and Android, making it accessible to many consumers.

1 “US DOE BTO Building Innovators Program Update.”
BLDGScout’s two products, the cloud software engine and a mobile app that aims to connect utility companies, including municipal and cooperative utilities, with their customers. Besides engaging customers, enpower also serves as a marketing tool. Enpower allows users to refer friends to their energy supplier through the app, thereby increasing the number of potential clients for the utility company while lowering the amount of resources needed to acquire these new customers.

Under its current model, BLDGScout receives revenue from two different sources. The first source is through partnering with utility companies. BLDGScout will charge a utility company a fee for every one of the utility company’s clients that uses the app. The second source of revenue is through customer acquisition. Here, an app user will invite their friends to switch providers to the user’s provider. When one of the user’s friends switches to the utility company, the user will receive a credit towards their next utility bill and BLDGScout will receive a set fee for helping entice the new customer to the utility company.

Our group believes that there are several strengths to BLDGScout’s approach. First, because this is a business-to-business business model, BLDGScout does not need to attract a large user base because the utility companies that partner with BLDGScout already have a user base. This limits the amount of marketing that BLDGScout has to do in order to gain users which therefore lowers the amount of money that the company must devote to advertising. Secondly, having users put information regarding their own homes into the app is a strength for BLDGScout. This customization may make the behavioral modification suggestions more applicable and individualized to the user and therefore more useful and relevant to the user.

While there are several strengths to BLDGScout’s business model, we believe that there are also weaknesses to it. The company’s revenue model is one of the biggest weaknesses that
our group identified. BLDGScout proposes that it will radically reduce new customer acquisition costs from $75-$150/new customer to $40/new customer. ² BLDGScout will share the savings with $20 going to the current customer for referral, and $20 going to BLDGScout.³ We believe that there are better and more efficient paths to revenue that BLDGScout should explore, which will be discussed later. We also believe that BLDGScout is on an unclear path to market since the current customers of the utility companies will be the only users so it remains unclear as to how new users outside of the utility company will be attracted to or know about the app.

Though BLDGScout may have lower advertising costs because it gains customers through utility companies, negotiating with every utility company may create a challenge. It will likely be time and resource consuming to negotiate fees and other contract details with every utility company. Utility companies will likely be more sophisticated than BLDGScout and may have more power in a negotiation.

**Current State**⁴

Since its inception, BLDGScout has spoken with several potential customers and pilot partners in order to gain a thorough understanding of the utility industry. Through these conversations BLDGScout found that utility companies are less receptive to new technology than energy retailers who place a higher value on customer satisfaction. Retailers and “Greener” utilities also express more interest in energy efficiency programs. BLDGScout is currently seeking both utilities and energy retailers as pilot partners. BLDGScout is currently working with an energy cooperative in Pennsylvania to test its technology.

---

² “US DOE BTO Building Innovators Program Update.”
³ “US DOE BTO Building Innovators Program Update.”
⁴ “US DOE BTO Building Innovators Program Update.”
In the United States, the state and/or federal agencies have traditionally set electricity rates and regulated the energy markets in each state.\(^6\) States were generally regulated under the cost plus model where the price of electricity is based on the cost of generating the electricity and then adding in profits as a percentage of the cost.\(^7\) Ohio decided to move against this traditional model by 1999 when the Ohio General Assembly passed a bill that outlined a plan to allow the electricity market in Ohio to be set by the free market.\(^8\) Around the time Ohio chose to deregulate, twenty-four other states were also in the process of deregulating their electric

---


markets. The Ohio law that deregulated the electricity market went into effect in 2001 and the energy market began unbundling itself so that the generation, transmission, and distribution became individual services. With the unbundling, energy producers began to compete to sell electricity to energy suppliers, who then would sell the electricity to the local utilities, who then would deliver the electricity to the end users.

One additional aspect of Ohio’s deregulation process was the introduction of government aggregation programs. These programs allow communities to choose whether or not to form an aggregation plan and then, if the community chooses to create the plan, all residents were automatically enrolled but could opt out. Ideally, these plans would allow the community to get a lower price on electricity. This phase of deregulation in Ohio had mixed results. By the end of the 2006 there was little market activity and only a limited number of electricity suppliers.

In 2008, when the original bill passed in 2001 was about to expire, the Ohio government passed another bill regarding electricity regulation, which revised some of the previous bill’s attempt to create and regulate a free market. This bill required electricity providers to create a standard service offer (“SSO”) for consumers who do not want to shop for an electricity provider. An SSO is “an offer of all competitive retail electric services necessary to maintain

---

12 “History of Electric Regulation in Ohio.”
13 “History of Electric Regulation in Ohio.”
14 “History of Electric Regulation in Ohio.”
essential electric service to consumers…”\textsuperscript{17} These SSO’s became the default plan options for consumers and the price of the SSO plans will eventually be through the free market.\textsuperscript{18} For those consumers who do want to shop for their electricity provider, there are a variety of plan options with varying pricing schemes. These pricing options include fixed pricing, variable pricing, and block and index pricing.\textsuperscript{19} The 2008 bill also set out guidelines and goals for Ohio’s use of advanced and renewable energies.\textsuperscript{20}

Ohio has not yet achieved a completely free and deregulated energy market, but it has seen benefits from this change in the electricity market structure. Electricity prices in the state have been decreased since 2008, partly due to market deregulation.\textsuperscript{21} While some states have abandoned electricity market deregulation, Ohio’s market remains deregulated. As of 2013, only about a dozen states as well as the District of Columbia had a deregulated electricity market while the remaining states had limited choice or no choice systems.\textsuperscript{22}

**Problem Statement**

With the increase in interconnectivity in home appliances, smart utility meters and various other tracking devices, end users have access to an ever increasing amount of data and choices which presents them with the opportunity to exert a greater degree of control over their lives. However, this very abundance, due to its raw and uncured nature, confuses end users, obscures control, and actually prevents them from taking action, in effect, loosening the end

\textsuperscript{17} Thomas, Lendel, and Park, “Electricity Markets in Ohio,” 15.
\textsuperscript{19} Thomas, Lendel, and Park, “Electricity Markets in Ohio,” 4.
user’s control over their lives. The deregulation of energy markets was supposed to provide end users with more choices and cheaper energy. Connected homes were supposed to simplify homeowners' consumption patterns and behaviors. However, deregulation has created a glut of choices that confuses end users and exposes them to fraud from bad actors. Connected homes have failed to provide insights, settling instead on providing more and more data, further confusing the end user.

**Central Idea**

BLDGScout’s proposal creates value for the alternative energy providers while failing to provide the value of de-regulated energy markets to the customers. Therefore, our group has explored the relationship between energy companies and their customers in order to create a solution that will capitalize on the de-regulated energy markets in order to provide value to the end user. Our group proposes to create a trusted online source of easily understood information. This source will allow end users to finally capture the value inherent in deregulated energy markets and to make better decisions about consumption patterns within their connected homes.

Throughout our group’s design process, we have attempted to keep the goals and ideals of BLDGScout alive. We do not seek to change the goals of the company, but rather only how it reaches these goals. We believe that our solution, detailed below, will allow BLDGScout to connect energy providers and the end users in order to create a more positive relationship between the two parties and also help to encourage end users to consume energy more efficiently.

Our group does not believe that BLDGScout is currently set-up to create a successful business. Energy companies are not adopting the app and yet those are the main customers currently targeted by the company, leaving the goals of the company unfulfilled. We believe that
BLDGScout can become a successful company in the growing field of conservation technology if the company identifies the proper customers and fulfills the wants of these customers.

With the development of our three web-based modules: Home Audit, Building Scout, and Switch My Bill, end users will at last be able to harness the power of savings in their homes.

Product Outline

BLDGScout seeks to connect energy providers and end users through empower, which will also provide notifications to users on ways that they can save money on energy costs. BLDGScout however did not have a solid revenue stream model or form of interaction with end users to make it valuable to either energy providers or end users. Throughout our design process we explored many different solutions to these problems and eventually designed our final proposed solution.

One of our first decisions that our group made was that BLDGScout should be focus on being a business-to-consumer company rather than focusing on business-to-business. BLDGScout focuses on selling its product to utility companies who will then encourage its customers to adopt and use empower. This limits BLDGScout’s potential market to only those consumers who use a utility company that has a deal with BLDGScout.

Secondly, we want to re-focus BLDGScout’s product to include more aspects than just push notifications to create behavior modifications. While encouraging users to consumer energy more efficiently does have the possibility of saving consumers money, the potential cost savings may not be large enough to encourage people to use empower. Therefore, we looked for ways to change BLDGScout’s technology in order to increase the potential value to end users. As discussed above, due to deregulation of the electricity market in Ohio, consumers are now able to shop for their electricity provider. Here, we saw an opportunity to exploit the value of the
deregulated electricity market, which not all Ohioans have done, by incorporating contract management into our solution. The contract management portion of our solution will manage end users’ contracts in order to find them the ideal contract for their needs.

Finally, our solution will incorporate an app in order to connect with users anywhere, but it will also be implemented as a website. Having a website will allow BLDGScout to provide consumers with more detailed information regarding their energy consumption and electricity plans. The app will allow BLDGScout to be able to connect with users and send behavioral modification suggestions through the app.

Throughout this process we spoke with several advisors who are all involved in the energy industry and were able to give us guidance on the current state of the electricity market, needs of consumers, and feasibility of our solution (see Appendix A). One advisor, Ben Bayat, encouraged our group to direct our product directly to the end user rather than utility companies. We also had access to a student software developer through the Technology Transfer Office at CWRU though, due to time constraints, we were not able to actually develop an app for BLDGScout. Additionally, we participated in first person research, wherein we navigated the path to switch utilities ourselves. We also spoke with power brokers about current residential pain points, and we spoke with utility customers as they attempted to change providers. Finally, we spoke with the Public Utilities Commission of Ohio (PUCO) regarding switch rates and utility customer behavior. The advice and insights that we gained through all of these people After speaking with all of these people and conducting our own research, we believe that there is room in the market for our proposed solution.

Proposed Solution
Team Harness proposes to create a three-module website and mobile application called “Utility Boss,” which will allow subscribers to access the following modules:

1. **Contract Management System** – Here, users will be able to search for the best plan for their energy needs and then sign up for it. The website will then monitor the plan to ensure that it remains the best plan for the consumer and alert them to any changes that could affect their satisfaction with the plan. Due to deregulation, energy customers in Ohio and several other states now have the option to seek out the lowest priced provider for their utilities. Consumers have additional considerations as well. For instance, consumers must make decisions regarding contract terms. These can include variable or fixed rates, length of the contract, source of energy (renewable or conventional) and certain trigger points that affect rates. Plans can change so they need to be monitored.

   Currently, there are several aggregator sites providing information regarding the utility providers. Some even going so far as conducting transactions on behalf of the customers. These transactions are one-time and involve merely switching providers. The remaining dynamics of the contracts need to be managed by the end user. One customer was quoted as saying,

   “I have switched my electric and gas providers around every couple of months for awhile now, and I will say that it is not for the faint of heart. You REALLY need to be on top of things. When your ongoing electric supply price will be variable and can change each month that is not a good thing for you. I usually sign up for 3-6 month fixed rates, taking whichever company offers the lowest price and/or best promotion. Then I set myself a reminder to make sure and update my account when the time frame is up. A month or two on the “variable” plan will quickly eat up any savings you have.”

   We believe that this problem can be solved by empowering consumers by presenting them with several of the best contract options for them, but also and in addition to, by managing

   

---

the ongoing contract. This module will automatically manage all of the dynamics to achieve the ongoing and lowest utility rate for the consumer.

2. **My Home** (see Appendix B) – This module is designed to allow users to understand their home’s energy footprint, energy budget, and the value of energy cost savings. Consumers can choose to purchase many different items that will help them reduce their energy consumption, so this module seeks to help consumers make informed choices about what products to buy. So many choices, when taken each by each, can seem overwhelming. To combat this, our My Home module will create a virtual test lab for our users. Users will be able to create their own house based on publicly available information and then provide details regarding current state (e.g. the kind of appliances installed, how many inhabitants live there, utility contract information, the consumer’s goals). Once the profile is completed, Utility Boss will access all of its users data and provide analytics to advise the subscriber on the best path to achieve their goals. For instance, if the subscriber wants to reduce their heating bills, and they are not currently employing a smart thermostat, Utility Boss may recommend a smart thermostat, like Nest. This recommendation will be provided with proof of impact from current users, such as, “based on your current home profile, we believe that installing a Nest Thermostat will reduce your monthly heating bill by up to 10%.”

To further understand the subscriber’s home profile, Utility Boss will benchmark each home’s performance based on utility spend and goal achievement. In this way, subscribers will be able to assess their progress towards their energy goals.

3. **Behavioral Suggestions** – The final modules is a behavioral suggestions module that is aimed at keeping subscribers connected to Utility Boss. Utility Boss will send subscribers alerts notifying them of potential savings, new products to consider which help them achieve goals,
and messages regarding simple ways to reduce energy consumption. These messages will be sent in the form of alerts on the subscribers’ phones, as text messages or as emails, or in any combination thereof. In this way, Utility Boss will keep the subscriber updated and informed about their progress towards energy goals.

(See Appendix C for a sketch of the home page of Utility Boss)

Why Users Will Use Our Product

Utility Boss is a product that is meant to empower users to take control of an area of their lives that they have not historically been able to control. Users have the ability to save money by managing their utility contracts in a simple way. Our solution will make information easy to understand and simplify the process of switching energy providers. We believe that this sense of control over their own money will entice users to our product.

Beyond this sense of control, users will also be able to feel a sense of pride in using the product because they will be able to understand and feel responsible for using less energy. One of BLDGScout’s main goals was to encourage users to consume energy more efficiently. Our team has worked to preserve this goal and, though we do not believe that it can be the only reason a user will use the product, believe that it can entice more users to use the app. Conserving utilities will give the users a sense of achievement, which we believe will give users a sense of having a ‘higher purpose.’

Utility Boss is a product that will appeal to more than just the environmentally conscious demographic. Incorporating financial savings and control along with environmental savings will broaden the scope of BLDGScout’s potential users and motivate them to use the app in from two distinct perspectives.
Implementing our proposal will not be seamless. BLDGScout will have to invest money in the creation of a website and a new app which will cost money. This may require BLDGScout to go out and seek money from other sources, which will take time. BLDGScout will also have to shift from the business-to-business model and re-orient itself to follow the business-to-consumer model. This will likely require marketing, which will also require money. Clearly the funds that are needed to implement our solution will be the biggest challenge to BLDGScout’s adoption of our proposal.

**Business Case**

With the advent of deregulation in the energy markets, consumers have begun seeking cheaper suppliers for their utilities. At the commercial level, this is already standard operating procedure, however, consumers have not had the opportunity to exercise much discretion towards energy suppliers. However, in Ohio alone there are over 60 listed suppliers of natural gas and electricity for consumers to choose from. This excess of choice actually creates confusion and complicates the decision making process.

In our research, we have utilized standard core customer segments, as provided by Accenture, to understand their desires in terms of products. In the “Accenture End-Consumer Observatory on Electricity Management, 2011, a survey of electricity consumers in 18 counties, consumer desires for an electricity management system were summarized as follows:

“Consumers’ interest in learning about electricity management programs can be met by specific events and providers. While the utilities/electricity providers are well positioned to connect with consumers during their top two preferred moments of truth, alternative providers have the opportunity to also reach consumers at key moments during the decision-making process.
Top three moments

1. When my electricity price increases
2. When I sign up for electricity service
3. When I am purchasing new appliances/household electronics”

80% of respondents report they want a technology that can completely automate the management of my electricity.”

(See Appendix D for full consumer segmentation).

**Competitive Analysis**

According to these desires, we researched the competitive landscape to determine who, if anyone, was achieving these goals. We determined that there were five main competitors in the residential consumer energy management space. They are

- **oPower** – oPower pushes energy usage data to consumers through integration with third party hardware providers. They provide real time notification from service providers to end users to manage demand peaks. They provide customer service modules to service providers to assist in customer service management.

- **Bidgely** – Bidgely manufactures hardware components to connect home utilities to its services. They also push consumption data to consumers, and offer community comparison and behavioral changes/tips. They can disaggregate energy usage at the appliance level by accessing Green Button technology combined with a proprietary algorithm. They provide real time notifications from service provider to end users to manage demand peaks and they provide assistance in customer service management. Finally, Bidgely provides a reporting system to track users engagement with mobile app.
● **PlotWatt** – PlotWatt pushes energy usage data to consumers through integration with third party hardware providers. They send text messages to notify users of consumption and provide predictive capabilities on maintenance for high consumption equipment.

● **MeterHero** – MeterHero pushes energy usage data to consumers through integration with third party hardware providers. MeterHero Informs end-user of their consumption trends thru website. They also aggregate and share data from the signed-up community.

● **Choose Energy** – Choose Energy is an aggregator of available electric and gas providers based on zip code. They facilitate signing up for service from web site - provide utility customer number

(See Appendix E for full competitive analysis)

Based on market segmentation research indicating a strong desire for a “set it and forget it” solution to energy management in the residential market, combined with a clear lack of any such all in one service provided by currently operating businesses, it is our belief that a real and sizable opportunity to create a product which combines set and forget utility contract management as well as IoT integration of the home (Smart Homes) and behavior modification through regular communications with subscribers. The competitors listed are covering one aspect of this problem, but no one is bringing all elements into one application.

**Design Process**

**Fall Semester 2015**

- Met with client and brainstormed potential design problems
- Spent time exploring possibilities for design issues and developed design brief

**Spring Semester 2016**

*January*

- Reviewed design brief and refined problem statement
- Brainstormed solutions based on refined problem statement
• Met with Tech Transfer office to explore resources available, potential for coding, and feasibility of design

**February**

• Touched base with client
• Continued to meet with the Tech Transfer office
• Talked with Ben Bayat and Kevin Lauterjung to validate our design solution and gather feedback
• Researched potential product features and the deregulation of the energy market
• Created Business Model Canvas of design solution and business model

**March**

• Developed personas and decided on product features
• Further refined problem statement
• Began to incorporate product features into conceptual design

**April**

• Refined mock-ups of design
• Developed project deliverables

**Conclusion**

Utility Boss is a solution that will drastically change BLDGScout’s business model, however we believe that it will ultimately help make BLDGScout successful. Our proposed solution sets the foundation to increase BLDGScout’s revenue stream as well as its customer base by re-orienting the company to appeal directly to end consumers through the implementation of different system modules that further engages the user with the application. Utility Boss is a solution aimed at giving users control over their own expenditures on utilities while also helping to increase more efficient utility consumption. We believe that this solution will help BLDGScout be a successful company and achieve its goal of positively impacting energy consumption in the United States.

**Appendix A**
Call

- **Issue 1 - Competition**
  - there is competition for aggregation - Choose Energy
  - surprisingly easy to use
  - Ben - value proposition doesn’t have to follow revenue model
  - We think that Choose Energy doesn’t get revenue from users → only from selling plans
  - Choose energy likely has brand recognition problem
  - Biggest difficulties - consumers are not aware, are consumers willing to pay
  - their VC financing has probably been rough
  - CE revenue plan likely shows that consumers aren’t willing/won’t pay
  - What will consumers be likely to act on
    - what is the engagement
    - biggest challenge with consumers - friction and willingness to pay
      - GOAL - minimize friction (ex. “set it and forget it”)
      - consumer willingness to pay a finder’s fee

- **Issue 2 - No Account**
  - could one drive people to use the sight
  - deregulation could affect the set it and forget it model

- **No recurring customers for Choose Energy**
  - one time revenue

- **still not sure whether this is a B-to-B or B-to-C**
  - look at what other people have done
  - take a different approach that minimizes friction
  - the value to the consumer is fairly substantial (can save a lot)
    - harness this rather than the 1 time model of Choose Energy
    - what can we do to incentivize consumers

- **Cyclical - phone companies are willing to buyout contracts and pay the cancellation fees**
  - this might not be sustainable long term
  - no business is willing to not pay the game - they will compete on price even knowing that consumers are the ones getting the benefit

- **Phase of ideation -**
  - what can we do/what is lacking in the market
    - figure out where we want to focus
    - do a competitive landscape analysis
    - feature comparison
      - companies will look at features when selecting a vendor - don’t want a complete replica
      - find something unique to be the more effective and better interface
    - have an understanding of value - what the modules are that produce value, who will generate the value
• make sure our idea hasn’t been tried and failed already and we are just doing the same thing (at least do something differently if someone already tried)

• find the founders of power to switch → contact them
  o look on linkedin

• IOT/analytics -
  o how many people have the devices/can provide data
  o what is the market size
  o problems:
    • integrating technology with manufacturing
    • retrofitting appliances
    • installing
  o how can you use the information to allow the consumer to draw insights
  o info on an individual device and its energy usage is basically given away for free now
  o this business model may not align with algorithm/info that we have

• behavior modifications - can come later

• Next Steps:
  o B-to-B model → figure out how to not just replicate what choose has done
  o how brokers can use the software
    • could we create a workflow for these people to use
    • give them data from consumers

• B-to-C
  o set it and forget it
  o charge a low monthly fee
  o implement behavior modification
  o budgeting

• Brian - continue primary research
• all - draw mock ups
Seyi Fabode - Asha Labs
From the UK
Worked with power station in the UK
Sold the power to 3 companies, 1000 Megawatts
Offload power to consumers
sold a big chunk to commercial clients
helped build software to allow plants to run effectively
worked with a big broker who bought the power for retailers
moved with wife to US
Booth MBA - US 3 years behind UK
Acquire first customers -
1.5 years in the commercial space
electricity bills with contracts
Did all manual work - calls, quotes, suppliers they had written contracts with
  1. Developed a manual process for changing commercial customer’s suppliers
  2. Automated the paper process
  3. Auto generate a quote
  4. Auto generate document proposal
The software was in place for commercial side which allowed them to move the process to the residential side.
Worked to funnel residential customers to the site.

Seyi said there is still not much awareness out there - wants us to succeed as consumers still don’t know what de-reg means.
Empower people to get them to believe in you
Content creation & education
Fun & Engaging events - 50 days of energy - fun facts about state to to state energy consumption.
KW of kindness - donate $10 of savings to customers in need
Consumers will do better when they know better.

Revenue model -
Power2switch was paid by suppliers to lower their cost of customer acquisition. In 2010 when they started working on residential side, suppliers paid $250/new customer. Each customer meant $1500 in lifetime revenue. Net margins less than $250 = loss.
Strategy was to develop large enough user base to get acquired/charge user base with extra services.
Power2switch charged $100 to supplier for each new customer.
Maybe negotiate $20 spiff for customer in need.

Consumers don’t recognize any difference -
Bill still comes from utility
Power2switch sends out emails
  1. Monthly - how much $ have you saved, how much CO2 have you saved, etc.
  2. 60, 30, 10 day notices of contract expiry
     a. Last one has 2 prices on it, current provider’s new rate
b. Second competing rate

Some customers stayed with them from 2010 to 2013 - not many
Constant reach out for feedback - $5 GC to amazon, etc. for finishing survey.
Focus on educating consumer

Subscription Model -
Never experimented with it in Power2switch
Did run a 400 person survey asking if users would pay to have their contracts managed -
350 said no, 50 said yes if savings>subscription
Still, once a customer realized that they could manage the situation on their own, they would
leave the system, if they were driven there by lower costs.
If a subscription model is to work, there must be some other element to keep people using the
site - competition, social aspect, regionality, cheaper rates…
1000 people, $10/month comes from 3000 FB fans = good start.

Seyi said he learned something today - and he wants us to succeed.
He said there is a lot of money to be made in this space.
He was generally positive, but wary of subscription model - most pain exists on the supplier side.
Does pain exist on the consumer side? How much?
Accenture Report

Call Kevin Lauterjung again

Points -
Must educate the consumer to possibilities
Make usage tangible, relatable - spend same on auto gas as home energy - show this. Maybe a
dashboard…
Outreach, organize fun and engaging events -
Give back
Stoke the ego, feed the sense of doing good and being empowered.

Maybe brokers are the key here - suppliers experience the pain, brokers have the relationship, we
bring the customers.
Appendix B

**Your House**

- Rank: 28th Real Time, NEO Region (151+ Homes)
- Electric: Illuminating Co.
  - Month to Month
  - Exp: N/A
  - Rate: $0.22/KWH
- Gas: Dominion
  - Month to Month
  - Exp: N/A
  - Rate: $0.22/KWH
- Water: Cleveland Heights
  - Month to Month
  - Exp: N/A
  - Rate: N/A

**Goal:** Reduce Utility Cost

1. **Reduce Gas Usage**
   - Lower your gas usage can save money on your utility bills.

2. **Install Efficient Appliances**
   - Replacing old appliances with energy-efficient models can significantly reduce your energy consumption and lower your gas bills.

**Goal:** Reduce Utility Spend

1. **Install Smart Thermostat**
   - Switching to a smart thermostat can help you save money on your heating and cooling bills.

2. **Install Smart Water Heaters**
   - Upgrading to a smart water heater can help you save even more on your utility bills.

**Goal:** Improve Home Stability

1. **Install Solar Panels**
   - Installing solar panels can help you reduce your reliance on gas and electricity, leading to a more stable and sustainable home.

2. **Install Energy Efficient Windows**
   - Replacing old windows with energy-efficient models can help reduce your gas usage and lower your utility costs.
Appendix C

### Utility Boss

<table>
<thead>
<tr>
<th>Utilities</th>
<th>Usage/($)</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Gas</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dominion</td>
<td>$3.904 MCF</td>
<td></td>
</tr>
<tr>
<td>- Monthly</td>
<td>$100</td>
<td></td>
</tr>
<tr>
<td>- your home ranks 25th % based on size, occupants, and use.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Alternative Providers</td>
<td>$4.19, $3.29, $3.00</td>
<td></td>
</tr>
<tr>
<td>- Monthly</td>
<td>$123</td>
<td></td>
</tr>
<tr>
<td>- Improve to 97%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Short Term Contract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Decrease to 23%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Improve Green to 10%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Electric</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Illuminating Co.</td>
<td>$0.0794 kWh</td>
<td></td>
</tr>
<tr>
<td>- Monthly</td>
<td>$120</td>
<td></td>
</tr>
<tr>
<td>- your home ranks 20% based on size, occupants, and use.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>2 Alternatives</td>
<td>$0.0755, $0.0715</td>
<td></td>
</tr>
<tr>
<td>- Monthly</td>
<td>$101</td>
<td></td>
</tr>
<tr>
<td>- Improve to 30%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Short Term Contract</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Improve Cost to 28%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- Improve Green to 16%</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H2O</strong></td>
<td></td>
<td>Unknown</td>
</tr>
<tr>
<td>Cleveland Heights</td>
<td>$0.00</td>
<td></td>
</tr>
<tr>
<td>- Monthly</td>
<td></td>
<td></td>
</tr>
<tr>
<td>- To include water in your ranking consider installing a smart meter, here.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Connect</th>
<th>A Cleveland, OH Company</th>
<th>About</th>
<th>FAQ</th>
</tr>
</thead>
</table>
Appendix D

Users - Accenture. Represents 13-22% of all people sampled across all (18) countries.

(Accenture end-consumer observatory on electricity management 2011)

- **Self-Reliants—13 percent** "I prefer to manage my electricity consumption on my own"
  - Adoption attributes: Self-reliants exhibit the highest willingness to manually manage their appliances based on real-time pricing information. They also show higher interest in monitoring and adjusting their electricity usage through an existing device. They are more uncomfortable than the average consumer about sharing data with a third party for commercial purposes, but have a higher readiness to purchase energy-efficient products from online sites.
  - Demographics: Self-reliants have a higher proportion of women and have a higher proportion of consumers who are 55 years old or older.

- **Social independents—18 percent** "I like testing new technologies"
  - Adoption attributes” Social independents express the highest interest in personally setting up their in-home device, and are more interested than other consumers in monitoring and adjusting their electricity usage through a new device. They also exhibit the highest interest in receiving their device, information and pricing program from multiple providers. They are relatively uncomfortable about sharing data with a third party to make a program work, and while they generally have the lowest interest in loyalty rewards, they would value electronics/computer rewards.

---

They are more likely to be dissatisfied about poor communication of changes to the program.

- Demographics: Social independents have a higher proportion of men, and are found at all ages and levels of income. They value a program that allows them to connect with a community and share experiences, and like the idea that a program would be regarded as “trendy” by family and friends.

- **Cost-sensitives—22 percent** "I look above all for the best financial rewards"
  - Adoption attributes: Cost-sensitives have the highest level of interest in loyalty rewards, especially loyalty rewards that can be used in a store for products and services of their choosing. They also exhibit the highest sensitivity to a program that would reduce their bill. An increase in their bill is likely to act as a catalyst to make them eager to learn about a program, and they are especially interested in programs that can be customized to their personal needs and usage.
  - Demographics: Cost-sensitives have a higher proportion of women, and include a relatively high proportion of consumers who are 25 to 34 years old. This segment has a higher than average share of lower-income consumers.

- **Service-centrics—18 percent** "I want the best service for my family and me."
  - Adoption attributes: Service-centrics are the segment most interested in full set-up of the device and assistance by a certified technician, and exhibit the highest sensitivity for a program that would allow them to better control the heating/cooling of their home. Their interest in learning about a program is more likely to be stimulated by moving into a new home. They are more likely than the average consumer to be dissatisfied by a program with poor customer support and
poor product installation, and have the highest preference for dealing with their utilities/electricity providers. They also express higher interest in a program that is easy to use for the whole family, and in an in-home device display installed at no cost.

- **Demographics:** Service-centrics have a higher proportion of women, and are spread across all ages and income levels.

- **Traditionalists—15 percent** "I prefer a familiar experience"
  - **Adoption attributes:** Traditionalists have the highest interest in receiving their device, information and pricing program from a single provider, and represent the segment most likely to purchase energy-efficient products from their utilities/electricity providers. Similarly, they have lower readiness to go to a retailer, telephone/cable provider or online site to purchase electricity, energy-efficient products, and/or related services. They are more likely to be interested in learning about a program when they are renovating their home.
  - **Demographics:** Traditionalists are divided equally between the genders and levels of income, but have a higher proportion of consumers who are 55 years old or older.

- **Tech-savvys—14 percent** "I value convenience and efficiency"
  - **Adoption attributes:** Tech-savvys represent the segment with the highest interest in automatic management of their appliances by a device, and are generally more interested than other consumers in full set-up of the device and assistance by a certified technician. They are the segment most likely to install a “SetAndForget” program that switches their devices on and off automatically, and have the highest
interest in monitoring their consumption on their mobile telephone or another personal electronic device. Tech-savvys also exhibit the highest readiness to consider online sites for purchasing electricity, energy-efficient products and/or related services.

- **Demographic:** Tech-savvys have a higher proportion of men. They include relatively high proportions of consumers 25 to 34 years old and who are high-income earners. They are more likely to choose a program that simplifies their life.

- Accenture end-consumer observatory on electricity management 2011