

- *I have not seen bulbs for such a low price anywhere else.*
- *As far as I could tell, it was the cheapest price for the bulbs I wanted, which made me want to buy them at the store.*
- *The difference is like four times less expensive.*
- *The bulbs were much cheaper than I could buy elsewhere.*
- *The pricing was so much better than what you could find in the stores for the product that I got.*
- *I recognized the savings when I got the flyer and it made me make the move to make the purchase. And, it was free shipping too.*
- *In some cases the price was less than half what I would have paid in other stores.*
- *It was just extremely affordable.*
- *The bulbs I purchased cost less than I could have purchased anywhere else.*
- *It was like half the price. Before, when I went shopping I could only buy one or two bulbs a month. This allowed me to buy everything I needed for the house all at once instead of just slowly changing a couple of bulbs at a time.*
- *They were 90% off prices: ungodly cheap.*
- *Very influential; bulbs were less than half of the store price.*
- *The reduced pricing was very influential because saving money on bulb purchases was the main reason I decided to purchase through the Savings Store.*
- *I price shopped at local retailers (Lowe's and Home Depot). The Duke price was much better than I could have got at the other stores; maybe \$2 a bulb difference?*
- *It made it worth it for me to buy from a store I never bought from before; worth the extra time to enter data*
- *Price is kind of the only rational for purchasing any item. These were offered at a good price, so I went ahead and took advantage of the offer.*
- *They were cheaper than Costco.*
- *The savings were the major reason for purchasing the bulbs.*
- *The reduced pricing was very influential because it was ridiculously cheaper than I could find elsewhere.*
- *I kind of compared prices to GE bulbs in a Walmart. At those prices, I would not have purchased any. The Store gave me the chance to try out new technology at a price I could afford.*
- *It was the cheapest. It sounded too cheap to be true.*
- *I like that the bulbs were less expensive than what I could find at a local store.*
- *The pricing was very influential because CFLs are still too expensive in stores like Lowe's.*
- *The reduced pricing was very influential because I generally dislike the cost of these new light bulbs. I was grateful to be able to stock up and save money.*
- *I like to save money, the bulbs were inexpensive.*

- *I was looking for dimmable indoor flood lighting and the website offered the least expensive ones. I looked at Home Depot, Menards or Lowe's, which all had higher prices. Since I had done so much remodeling in the basement, I needed to buy 18 light bulbs and buying that many CFLs gets very expensive.*
- *I liked the price of the bulbs and the energy they save and that they last so much longer.*
- *The reduced pricing was the major reason I bought the bulbs from the Saving Store. I knew what types of bulbs I wanted and I wanted a lower price for them than I could find at the Meijer's store.*
- *At that time, \$8.95 for an LED bulb was unheard of.*
- *The bulbs sold on the website were cheaper than elsewhere, Home Depot in particular.*
- *I knew I wanted certain bulbs for the house and I wanted them at a low cost. I had purchased some CFLs in bulk from Costco and the ones offered online were less expensive.*
- *The reduced pricing was the most influential factor in my decision-making process.*
- *Price was a lot higher elsewhere*
- *Price is important, and after shopping in other retail stores I knew that these bulbs at the Savings Store were priced very well. I don't know exactly how much money I saved, but I know it was pretty good.*
- *I knew that I wanted more CFLs for the house and I wanted them inexpensively. I compared prices at the Home Depot and the ones sold by Duke were a lot cheaper.*
- *I've been experiment with different types of bulbs, and it's expensive. They were low enough in price that, if they didn't work in my residents for my purpose, they would work for my rental property.*
- *I couldn't touch it anyplace else for that price.*
- *I verified that they were the best quality of bulbs provided at the least expensive price compared to what I looked at Home Depot, Lowe's, Target, and Walmart.*
- *The reduced pricing was the most influential factor in our decision to purchase through the Store.*
- *They were very inexpensive compared to what I used to paying.*
- *The reduced pricing was the main reason I ordered the bulbs from the Saving Store.*
- *There was enough difference to make it really worthwhile.*
- *I knew that we wanted to start switching the bulbs over to CFLs and the pricing offered on the website was lower than I could have gotten in stores.*
- *I shopped around at other retailers and I knew that the bulbs that Duke offered were the most economical.*
- *The reduced pricing was influential because it was cheaper than what I could find through local hardware stores.*
- *The lower price available at the Saving Store was the main reason we ordered the bulbs.*
- *It could save me a lot of money. I even purchased extra bulbs for later.*

- *The reduced pricing was my main consideration. I would not have purchased the bulbs at a higher price.*
- *It was a good value and it was easy to do.*
- *The reduced pricing was the main reason I wanted to order the bulbs.*
- *The reduced pricing at the Savings Store was very influential because it was comparatively cheaper than other stores.*
- *The prices were right on.*
- *My husband was impressed with the prices. We had spent more on purchasing bulbs in the past from other places.*
- *The reduced pricing was very influential because I'm always looking for a bargain.*
- *The bulbs were cheaper at the Saving Store.*
- *I was only there because of the savings and the efficiency.*
- *I normally wouldn't spend a lot on light bulbs all at once, but the prices were so good.*
- *I'd researched the price and the bulbs aren't the easiest thing to find. When I found the bulbs, my search was done.*
- *It was all about convenience and price.*
- *They were much cheaper than Home Depot.*
- *I would not have even looked at the website if they didn't have the reduced prices.*
- *It was significantly less than the retail price.*
- *I wanted the CFLs but the number that we needed for our house was so great that it was cost prohibitive to switch them all over at once. The website made switching all those bulbs over more affordable. I got 39 bulbs and all of them are installed and I could have used at least twice that number.*
- *The reduced bulb pricing and potential energy savings were my primary considerations.*
- *I liked that Duke subsidized the price.*
- *Everybody wants to save. The economy is not that good, so I want to save at every opportunity.*

**Influence of Savings Store reduced pricing: rating "8 or 9 out of 10"**

- *I wanted to save money on the bulbs.*
- *The reduced pricing was my main influence.*
- *That was the main aspect that persuaded me to buy light bulbs thru the website.*
- *I've shopped for these sorts of bulbs in hardware stores and felt Duke was significantly cheaper.*
- *We wanted the longer lasting bulbs and the discounted price of the bulbs coupled with free shipping really made the transaction worth it.*
- *The reduced pricing was somewhat influential. I wanted the bulbs regardless.*
- *If it's not comparable to what I could buy, I wouldn't have done it.*
- *I went from regular light bulbs to the CFLs which were free then.*



- *I thought the prices were good.*
- *The pricing of the bulb was a factor, but the type of bulb and the energy savings was as much of a factor.*
- *I wanted to save money on light bulbs and I did.*
- *It was quite influential, but the ease of purchase/convenience was equally important.*
- *Sometimes it's hard to shop for stuff through mail order or online, I was not familiar with the product. I would have liked to see the bulbs in person before I purchased them, but the price that was offered on the website was so good that I just went ahead and bought them.*
- *The reduced pricing was influential because it was less expensive than other retailers.*
- *The price was not why I purchased the bulbs.*
- *It was one of the driving factors that I chose to go there instead of someplace else.*
- *The bulbs are supposed to last. So, I spend more money and I don't have to buy them as often, I guess.*
- *The reduced pricing was influential because it made my purchasing decision easier.*
- *It was a better price and I really like the bulbs.*
- *The discounted price was the main reason I chose to purchase bulbs from the Saving Store.*
- *Some of the bulbs, like the dimmable indoor reflector CFLs, we had been looking for in local stores. We could not find any of those bulbs available in those stores at that price; the pricing offered by the Duke site was unbeatable.*
- *I just ordered what I needed, but the prices were good.*
- *Price is always important*
- *The biggest number of bulbs was the lowest price. The prices seemed pretty reasonable in the floodlight bulbs.*
- *The reduced pricing was influential because it was cheaper than Home Depot and/or Lowe's.*
- *I love sales. I enjoy a good buy.*
- *As I can't directly recall, it must have been a good price if my husband was willing to buy them.*
- *I probably wouldn't have gone to the site if that offer wasn't in front of me. It was and experiment on my part.*
- *The price was 20 to 30 percent less than Target.*
- *If I had found the same bulbs at the same price locally, I wouldn't have waited for them. The price made it worth waiting for shipping.*
- *The reduced pricing and convenience of shopping online both heavily influenced my decision.*
- *The reduced pricing was influential because it was cheaper than what I could find at other retail outlets.*



- *Because price is always important to me, these bulbs were offered at a good price online. If these bulbs were offered at a store for the same price, I would probably buy them from a store because I'd have them immediately, instead of having to wait for the bulbs to be delivered to my house.*
- *The reduced pricing was influential because I was able to find LEDs cheaper there than anywhere else.*
- *The reduced pricing was influential because I am a penny pincher.*
- *Yes, price was the main influence for me, and I do remember that these bulbs from Duke were much cheaper than bulbs I looked at in any retail store.*
- *The reduced pricing was influential because it was 92% less than standard retail.*
- *I don't give a lot of thought to that.*
- *Combined price plus free shipping made it cheaper than stores.*

**Influence of Savings Store reduced pricing: rating "6 or 7 out of 10"**

- *It was more about saving energy than the cost of the bulbs for me.*
- *The reduced pricing was a secondary consideration after my desire to save the environment.*
- *The ones I was positive about were a ten and the other ones I wasn't sure about. There were lots of choices.*
- *I'm not all sure that Duke Energy has the best price. They were OK. I was debating whether to go with Amazon or Duke Energy.*
- *Looking for a more efficient bulb, the prices were a little bit higher than other stores you go into, but they seem to be lasting longer and hopefully saving energy.*
- *The reduced pricing was influential because I would not have bought them otherwise.*
- *The pricing was influential because the bulbs were comparatively cheaper than those at Lowe's.*

**Influence of Savings Store reduced pricing: rating "5 or less out of 10"**

- *The reduced pricing wasn't an influential selling point. I simply needed bulbs and the Savings Store was convenient at the time.*
- *The price of the bulb is only one component of what I'm trying to operate here. I'm mainly looking for what I can get a long life out of and for the energy savings.*

**Influence of Savings Store reduced pricing: rating "don't know"**

- *I don't remember if the bulbs were being offered at a reduced price on the website.*
- *I don't know. (n=10)*

**Influence of information at the Savings Store website: rating "10 out of 10"**

- *The website was just very easy and intuitive. I was able to navigate it without any problem.*

- *I felt like I knew exactly what I was getting.*
- *It sounded like exactly what I wanted.*
- *The descriptions helped me chose the bulbs I was looking for.*
- *The information was very influential because it told me exactly which bulbs I needed for certain lamps.*
- *The information was what I needed at the time to help me decide which bulbs to buy.*
- *All the info was I needed was there at the website. I don't know much about light bulbs, so the descriptions were great to find exactly what I wanted and needed.*
- *I was mostly influenced by the bulb descriptions.*
- *If I had to buy them from a local store, I wouldn't save much relative to the bulb price. But at the price offered, I can expect payback within a year.*
- *The information was influential because it provided me with an estimate of my potential energy savings per year.*
- *The descriptions helped me decide if I wanted to do that and which ones to get.*
- *The information provided made it seem like purchasing through the Savings Store was cost effective and easy to do.*
- *The price was right and the bulbs are what I was looking for.*
- *It described the price, which was extremely low.*
- *I was influenced by the bulb descriptions and energy saving estimates.*
- *The descriptions were clear.*
- *We were just at Walmart pricing some of those light bulbs. With as tight as money is today, those light bulbs were a good price!*
- *The price information.*
- *The cost of the bulbs compared with retail.*
- *I liked the information on how much light they provided.*
- *The descriptions and explanations were very good.*
- *All of the information I needed was there, it explained everything, I found the information very influential towards making my purchase decision.*
- *The information showed how much money I could save and that the bulbs last for a long time seemed very convincing.*
- *It gave me all the information I needed.*
- *Even though I knew what I wanted, the information provided sealed the decision.*
- *We especially liked the information about the energy savings estimates. We like anything that saves us money.*
- *They described what I needed to know and this made me decide to purchase.*
- *It states on there how much you save by using CFL or LED, as opposed to whatever the others bulbs are.*
- *That's what captured my attention.*
- *I know it's accurate and the pricing was good.*

- *Knowing that the savings is there and the information makes it very helpful and appealing.*
- *It was very easy to navigate through it and everything was self-explanatory. They seemed like they were at a good price.*
- *The descriptions were good.*
- *I was able to figure out the pricing and size of the bulbs I needed, so it made it an easy decision.*
- *It was easy and they gave you enough information to make an informed decision.*
- *It was easily laid out and I already knew price points.*
- *Cost was the biggest factor, and the price was right there at the website.*
- *They had almost all the stuff, the information, readily available.*
- *It was very easy, it was very understandable, and it made my choice very easy.*
- *Because it simplified everything. The page said, 'here's the bulb, here's what it will do for you, and here's the price.' It gave information about the bulb's lifespan, and that it takes less energy. The explanations of the product were excellent, and they did the job.*
- *The photos were very helpful.*
- *The information was influential because it told me how much money I was saving on bulb purchases versus retail pricing, and the bulb descriptions were helpful.*
- *The descriptions were very good.*
- *The information prompted me to buy the light bulbs.*
- *I received a pamphlet that was very influential. It explained everything, and included pictures and prices.*
- *It was easy to do.*
- *The information was very influential because I was able to compare lumens and pricing versus bulbs available at Lowe's. The Savings Store had the information I was looking for.*
- *The price was the main influence of why I bought these from Duke. I can't find outdoor bulbs that are incandescent or halogen in any stores anymore, so that was the other reason I got these. The information provided just helped me make sure I was buying the correct type of bulb for my needs.*
- *I found that it was easier having all of the light bulbs grouped in one place, it made it easier to find what I was looking for, and all of the information I wanted about each bulb was right there in one place. It's the easiest thing I've done online.*
- *If I couldn't use them in my home, I had another spot where I could use them and it would be a big energy-saver for me.*
- *It was very easy to understand and navigate on it. It was well-explained and all that.*
- *The site gave me all the information that I wanted to know. I liked how it gave comparisons of cost savings with other varieties of bulbs, and comparisons of wattage. The site provided all the information I would have sought out myself as far as researching the bulbs.*



- *The ratings, watts used, lumens, approximate hours, and the price were all good.*
- *I liked how long the bulbs lasted and I figured I'd save in the long run.*
- *Overall, I felt this was a good way to buy them and I saw a definite advantage to cashing in on the savings.*
- *Because seeing the description and everything told me about each bulb I looked at. The site provided and told me what I needed to know as far as lumens, indoor/outdoor, and best usage for each bulb. The descriptions were very good.*
- *It helped me pick out the light bulbs that we wanted for the house. We have a lot of different types of light bulbs in the house. The information also let us know how much energy we would be saving by switching to CFLs.*
- *The information on saving energy was very helpful. I am very interested in saving the environment.*
- *I was looking for how much lighting I would get per kilowatt. I also was interested in how long the bulb would last.*
- *I didn't have any problems.*
- *The information was very influential because I tend to leave lights on all the time so I was looking for energy efficient bulbs.*
- *The information about bulb longevity and energy cost savings was very influential.*
- *I understood all the information provided and it helped me choose the bulbs that I wanted to try out.*
- *I was only there because of the savings and the efficiency.*
- *I knew that if they were offering them, they were good quality and they were what I needed.*
- *It described exactly what I needed and it was a good price.*
- *The information allowed me to pick what I wanted for the house easier than just pictures.*
- *The website was easy to navigate and told us how much we would save on our bill.*
- *Because I wanted to lower my costs of energy, and when I saw that information, it was clear and straight to the point. It informed my decision making.*
- *I don't know. (n=2)*

**Influence of information at the Savings Store website: rating "8 or 9 out of 10"**

- *The information at the Savings Store website was influential because it confirmed what I thought was true about the LEDs I was interested in.*
- *It was easy to make a purchase.*
- *The information was very influential because if they didn't have it I wouldn't have made the purchase.*
- *I was concerned about their durability outside and they gave me good descriptions. I was concerned about having to repeatedly get on the roof. I didn't want to put a bulb up there that couldn't withstand the weather.*

- *I was trying to find energy-efficient bulbs that I could use in a recessed light fixture and I found them.*
- *How much savings am I really receiving in energy use? I'm not sure if the time they say they last is accurate either. Everybody should at least try them.*
- *Sometimes you just have to know what your needs are. The information provided on the website helped me figure out what I needed. Although, I did have to go to a local retailer to visually and physically see the items I was shopping for so I could use that knowledge to make the comparison with what was available in the Savings Store.*
- *The informational video with the lady at the beginning was very helpful.*
- *I had already gathered the information I needed and was predetermined on the type of bulb I wanted.*
- *I knew what I was looking for the home so I didn't really need the bulb descriptions as much and didn't look at the energy savings estimates at all. The information provided was helpful but I just didn't need that much help.*
- *The information was good.*
- *It was pretty influential. It provided all the information I needed to make the decision.*
- *The information was influential because I compared pricing with other retail outlets.*
- *I only had that one question when I called, so I assumed that the bulbs were what I needed.*
- *The bulb pricing and multi-pack information influenced my decision.*
- *It was helpful, but I already knew what I wanted.*
- *I understood the descriptions and knew what I wanted to buy.*
- *It informed us about how long the LEDs were going to last, which encouraged us to buy the bulbs.*
- *It was a fairly large factor, given the information I saw there.*
- *Because I never had gotten that kind of information. There was more information provided at the website than there was in the flyer I received in the mail. The additional information helps me decide which bulbs to buy for which lamps I wanted them in.*
- *The information was easy to digest but I wish it would have provided more information about the sizes of bulb bases.*
- *I was able to compare wattage to what I think I need and order them on that basis. The other thing is the shape of the LED bulbs. I'm not crazy about the curly cue bulbs.*
- *I think there was a video on the main public webpage that I thought was helpful. It was a video showing the variety of bulbs available, which persuaded me to take a further look at the website.*
- *As long as the pricing is comparable and the convenience, I'd shop there.*
- *You can't always believe what you read. You have to take all information with a grain of salt.*
- *The information was helpful but I used the information provided in the insert that I received with my bill more.*

- *It helped me pick out the light bulbs that I thought would be best for me home.*
- *I think that information was fine.*
- *Because I already know that I'm going buy CFLs, I did not need that information to persuade me. I've used CFLs in the past, I already know about their benefits, so the information provided did not have a huge impact on my prior knowledge.*
- *I already knew that CFLs and LEDs were better than incandescent bulbs when it came to longevity of the bulb and the energy savings, so the information provided did not have much influence on my decision to buy these bulbs from the Duke store.*
- *The information was influential because I was able to find what I was looking for.*
- *I have a lot of light bulbs in my house. We burn a lot of lights. We're looking for energy savings and we have a lot of bulbs that are exposed. So, the information on the website encouraged me to try what was available on the website for the LED capsule bulbs and the CFL globes.*
- *The information helped me figure out what I needed. I was looking for CFLs that were both dimmable and indoor flood lighting, which was harder to find in stores than I thought.*
- *The information on the website was influential because we compared bulbs and the website confirmed what we read in the Savings Store mailing brochure.*
- *I'm not really sure why I gave it that score. I was just being nice. I pulled that number out of the air.*
- *Nothing is perfect but the descriptions were pretty good.*
- *I did not visit the store online. I received a Savings Store brochure in the mail and placed my order over the phone.*
- *The information was helpful. It was easy to use and description the descriptions helped me pick out what I wanted.*
- *The information was influential because it helped me calculate my Return On Investment (ROI).*
- *It was easy.*
- *The information was helpful but I was already well set on getting the bulbs before I read the information about them.*
- *I knew there were savings involved and I knew it was a good price on the bulb. I didn't go into the technical aspects.*
- *The combination of potential energy savings, bulb pricing, and the variety of bulb selection were all influential in my decision.*
- *The information confirmed what I already knew.*
- *I thought I could trust the information.*
- *The information was relevant and it was factual.*
- *The information comparing standard retail versus Savings Store pricing was very influential.*
- *The information was influential because it showed that I was going to save energy and money.*



- *I thought it was very informative and it had what I needed.*
- *I got what I ordered. I didn't end up with something I ordered by mistake.*
- *At my age the descriptions made it easy for me to understand what we were getting.*
- *The information helped me pick out the bulbs that I wanted for the house.*
- *I wasn't really looking at the time and the information. The savings convinced me to give it a shot.*
- *Because when I first read it and the Savings Store talked about the prices for each specialty bulb, I was hooked on ordering from there. The price was the main thing for me, but I really did find what I was looking for from the bulb descriptions.*
- *The information was influential because it helped me decide which LED bulb I wanted to try.*
- *Because it was almost perfect, the only issue we had was that the candelabra bulbs were not what we expected. The light quality of the candelabras is not what we expected, their light is more yellow than I would like, I was expecting a clear white type of light from them.*
- *Without the descriptions I would not have known which bulbs to purchase.*
- *I found information about dimmable LED bulbs.*
- *Because of the energy and the price.*
- *I found the equivalency of CFL to incandescent wattage helpful.*
- *Everything was really good. There was one bulb that I couldn't find anything comparable. I couldn't find anything that would give brightness as between 60W and 100W.*
- *Because the descriptions on energy savings were really good*
- *Because it was easy to make a decision about what I needed based on the information provided at the website, everything was there for me.*
- *It helped confirmed that the cost of operation is going to save me money. It's almost unbelievable, too good to be true.*
- *The energy auditor from the Home Energy House Call program told us that we'd save money on our bills if we switched more lights over to the CFL type and that they were selling the discounted specialty CFLs on the website.*
- *Easy to get all the information in one place*
- *Was able to determine that the bulb size offered would fit my fixture.*
- *The information was influential because it seemed accurate.*
- *It was helpful.*
- *I don't know. (n=3)*

**Influence of information at the Savings Store website: rating "6 or 7 out of 10"**

- *I was more interested in the discount.*
- *I doubted the energy savings and longevity estimates.*

- *It didn't link to any reviews. I needed other sources to find out reviews on the bulbs.*
- *Because I'm already pretty familiar with CFLs in general.*
- *The information was moderately influential because I already knew which type of bulb I wanted.*
- *The information was somewhat influential only because I already knew which bulbs I wanted.*
- *I already knew what I was looking for so the information didn't need to do a lot of convincing.*
- *I had it in my mind that I was going to do that before and the reduced cost was one of the big factors. The energy savings and the descriptive factors all played a small part.*
- *I was looking make sure I had correct socket size and compare the wattage of the bulbs.*
- *The information could have been better.*
- *Some of the information was informative and some made me concerned whether we could use those bulbs. I had to look at the different lamps in my house.*
- *The information was influential, but once I received the bulbs it became evident that they weren't what I expected.*
- *It would be helpful if the website would show different bulb of a similar type. Like for the canned flood light show all the different sizes that you sell so the customer can compare them and pick out the size bulb they need. Then the customer can select the size and then go through the other options, like dimmable/non-dimmable, wattage, etc.*
- *Basically, I had already decided what I was going to purchase.*
- *I knew what I was buying and that I needed light bulbs.*
- *I really didn't use the information provided on the website because there was a lot of information in the insert that can with my bill. I liked how much information was on the insert. It helped me decide to order from the website.*
- *The prices are a ten and the descriptions are a five because I didn't feel I got all the information I needed.*
- *I didn't have to be influenced. I needed bulbs, they're prices were better than Target, and I was already using that type.*
- *I really was looking at price and consistency in bulbs.*
- *It was helpful to know what kind of bulbs they had, but I already knew what I wanted.*
- *I was already familiar with the bulbs.*
- *The information was somewhat influential because I already knew which bulbs I wanted.*
- *The information was influential because the energy savings estimates are comparable to similar bulbs available elsewhere.*
- *I would say it was pretty influential, I don't know, I ended up buying the bulbs, so I guess the information was influential enough for me to make a purchase.*
- *The information was helpful but not necessarily influential.*

- *Because I already knew that they were going to save me money by being energy efficient. I also knew that the bulbs offered at the website were cheaper than what I had seen at Lowe's.*
- *We knew what we wanted before visiting the store.*

**Influence of information at the Savings Store website: rating "5 or less out of 10"**

- *The insert that came with my bill provided me with the information that I needed to pick out the bulbs I wanted to try out.*
- *The information was not at all influential because I was going to purchase the bulbs regardless.*
- *On estimates of energy use you have no idea what you'll be saving money-wise on your bill. My lights aren't on all the time.*
- *I was basing it all on the brochure they sent me.*
- *I had already made up my mind, so it didn't make any difference. I knew I could put a lampshade on them and I knew what CFLs do.*
- *I had already decided to make a purchase from this Duke store based on the price they were offering, which is lower than what I could find in any store.*
- *It would be better if you showed pictures of the CFLs with their standard incandescent equivalent bulbs. I had a hard time picking out which candelabra bulbs I needed. I don't remember seeing the information on the energy saving estimates for each bulb.*
- *My husband told me what to buy.*
- *I had to research outside their website.*
- *The information was moderately influential because we already knew which bulbs we wanted.*
- *It was all about convenience and price.*
- *I did not feel the information gave me enough information to know which would be a good outdoor bulb.*
- *I didn't really know what I wanted.*
- *The information was influential but bulb pricing was the deciding factor.*
- *The information was adequate. I try to make eco-friendly decisions.*
- *The information helped with making decisions about which lights to purchase but I used the insert just as much.*
- *The information was moderately influential because I already knew which bulbs I wanted. I could have used more information about bulb base sizes.*
- *It's a guess because I don't remember. I had to make sure the bulb had the right base and right appearance.*
- *The information was nice for picking out the bulbs I wanted but it was the low prices that got me interested.*
- *I already had the information I needed before I made my purchase.*
- *The mailer and the pricing were more influential to me.*



- *I'm pretty neutral. The information helped me select what I wanted but it didn't cause me to buy the light bulbs. I knew I wanted certain bulbs for the house and I wanted them at a low cost.*
- *The information wasn't particularly influential because I already knew which bulbs I wanted. I wasn't visiting the site to analyze potential energy savings.*

**Influence of information at the Savings Store website: rating "don't know"**

- *The information was as good as any place else, but I knew what I wanted going in.*
- *I don't have a computer. I made a phone call and ordered then.*
- *My son did this online purchase for me.*
- *I don't remember going online to make purchase.*
- *I got a brochure that gave information about the different types of bulbs that they offer. I did not use the website; I only called the phone number provided on the brochure to place my order.*
- *I don't own a computer and don't use one. My sister ordered the bulbs for me on her computer.*
- *I knew that I wanted the bulbs and I wanted a lower price for them than I could find at the Meijer's Store. Cost was the driving influence of the purchase. The information was only helpful in choosing the bulbs.*
- *I don't know. (n=5)*

**Influence of convenience of shopping online: rating "10 out of 10"**

- *I prefer to shop online. It seems there is more of a variety of items online than in stores.*
- *They had a deal and they shipped them to my house.*
- *I shop a lot online; it's easy and convenient.*
- *I didn't have to get in the car and run to the store to get the bulbs.*
- *Not having to go to a store was great.*
- *The convenience of shopping online was influential because I prefer to do a lot of my shopping that way.*
- *I was disabled at the time so it was very helpful to be able to order online.*
- *Because I was able to look at things online.*
- *The convenience was very influential. I don't think I would have made the purchase otherwise.*
- *I guess you see the advertisement for the Savings Store when you pay your energy bill; a time when you are probably thinking about how to save energy or consume less energy, so it was convenient to just follow that link.*
- *I prefer not to go out.*
- *It was so easy.*
- *The process was so easy. I enjoy shopping through the internet.*

- *I wanted the light bulbs delivered. I am a big online customer.*
- *It was easy and I'm lazy.*
- *I like online shopping.*
- *I enjoy shopping online when I can because it saves money and time.*
- *Online ordering turned out to be easy and they were shipped very quickly.*
- *If you were disappointed by not finding what you wanted on-line, it's not as big a waste of time as if you got in a car and went to the store. It's also easy to shop from the comfort of home.*
- *All I had to do was get on my computer. I didn't have to go anywhere.*
- *The convenience of online shopping made it easy. I wouldn't have bought the bulbs otherwise.*
- *Convenience of not having to fight the crowds at a store and delivery to my door.*
- *I hate shopping. I bet I do 85% of my shopping online.*
- *The convenience of shopping online, bulb availability, low pricing and home delivery were all contributing influences.*
- *I just prefer shopping for most things online, especially when free shipping is offered.*
- *Convenience and variety.*
- *It was easy to order the bulbs and have them delivered. The insert explained everything that I needed to know about the different bulbs available.*
- *I'm more comfortable doing things on the internet than my wife. It's easy to understand what you got online.*
- *I'm killing two glasses with one rock, getting two things done at once: paying my bills and ordering light bulbs. I trust Duke Energy and I have no complaints about them at all.*
- *It was handy to order the bulbs online. I order a lot online because I find it more convenient than shopping in a store.*
- *It was very easy to just go online and make the purchase versus going into the Duke office to pick them up.*
- *I could compare things between different websites that were selling bulbs.*
- *So easy; I didn't have to get in the car. Just a couple of clicks, and I had made my purchases.*
- *It was easy to order online and I didn't have to go to a store to get the bulbs.*
- *I knew I could get my son to do it.*
- *I didn't have to go to a store for them. It was convenient to order the bulbs online.*
- *Just because it's easy to shop online then and there, I was already there to pay my Duke Energy bill online.*
- *The website's ease of use and the amount of time it took make the purchase was quick. I didn't need the bulbs immediately so I don't mind waiting for them to be delivered.*
- *I love to buy stuff online.*
- *It was convenient.*

- *Because I did not have to look around from store to store and try to shop through all the different bulbs on the store shelf or compete with other customers while trying to make my decision.*
- *I don't get out much. I'm older and it's hard for me to go to the store, push a cart around, and carry so many bags into the house. Picking out items online for delivery helps me get the things I need.*
- *Because it was easy to shop online and it was what we wanted, energy efficient bulbs sent straight to us.*
- *It was the most convenient way. My time's too precious.*
- *Because it was easy, simple, the price was good, the shipping was fast. It was so great just being able to order these from the convenience of my own home and have them brought straight to my doorstep.*
- *Doing anything on the internet is the easiest: I don't have to search around; I don't have to talk to anybody; and I don't have to go into the store.*
- *I love shopping online. It was a one stop shop with all the information I needed available.*
- *There's nothing exciting about light bulb shopping.*
- *It was extremely easy. They took my money on my charge card and they came in a minimum amount of time.*
- *Because I don't like buying light bulbs in the store. When shopping in-store, it's often hard to find what you want in one place. Trying to figure out or matching exactly what you need is harder when you are in a store, away from the actual source where the bulb is needed. Shopping online can be much easier because there is less guessing for what you need.*
- *It was just easier. I could do it in the convenience of my own home. I could click and it was done.*
- *I like shopping at home.*
- *I go to the grocery and forget to buy light bulbs. I just go with the store there because I pay all my bills online and shopping online is so convenient.*
- *I wouldn't go into a store for these specialty bulbs.*
- *It was just easier for me to sit here instead of taking the time to go to the store.*
- *I would not have purchased these if it weren't for the convenience of ordering online.*
- *I don't know what I'm looking for when I go to the store and the Saving Store provides information that I need.*
- *I do most of my purchasing online for the convenience factor. Because I travel every other week, it's about the only way I do shopping. I don't have time to shop. I probably do 80 percent of my shopping online.*
- *It saves me a trip to go somewhere to shop for them and they're delivered right to my house, which is very convenient.*
- *The convenience of shopping online and home delivery were very influential. I do most of my shopping online these days.*



- *I hate going into like a Lowe's and they have every light bulb you'd want to buy. I like the convenience of having them delivered to my home and they were really well-package. I liked being able to order them on my lunch hour at work.*
- *I like to shop online.*
- *I like the fact I didn't have to leave the house, that the information was clear, and that the price was good.*
- *Because I could buy what I needed while in my house, so I could see what I needed. With so many bulbs in the house, I can't remember all of them when I'm at the store. The website let me check what I needed as I shopped.*
- *Anytime I can order online I do. I don't want to have to put up with people at stores.*
- *The convenience of shopping online was very influential because it meant I didn't have to (leave my home and) go to the store.*
- *The convenience of online shopping was very influential because I prefer to do a lot of my shopping online.*
- *Shopping online was easy and it saved time.*
- *I buy anything online that I can.*
- *I don't like going around the stores shopping. The Duke store had more bulb choices.*
- *I visited the website, thought I was nearing completion of my order, but soon became confused. I then called the Savings Store's support telephone number and placed my order directly over the phone. The customer service representative was very helpful.*
- *It was really easy to do and I didn't have to leave the house to go buy them anywhere.*
- *It is a lot easier to shop online than going to home depot.*
- *The convenience of shopping online was very influential because of all the helpful information available.*
- *The convenience of shopping online was very influential because I dislike going to the store.*
- *I just like the convenience of shopping online; I was able to make price comparisons from the use of the internet instead of running from store to store trying to find the best price. Also, it's great shopping for bulbs online while you are at home so you can be assured that you are buying the correct type of bulb that you need for a particular light.*
- *I didn't have to leave the house and I was able to thumb through the catalog of available bulbs from the comfort of my home.*
- *Well, it was much better than going to a store to try to figure out what kind of bulbs I needed, plus I didn't have to drive anywhere and waste a bunch of gas driving around from place to place looking for what I wanted. That shipping price the website had set was not bad in comparison to the time and money that would have been spent shopping around from store to store.*
- *The convenience was very influential because it was so easy and the shipping cost was reasonable.*
- *Easier than placing an order by mail.*

- *Because it is a lot easier shopping for the bulbs online than going to a store. It can be overwhelming when I am trying to decide on what I want or need in the store. The website had all of the information I wanted all in one, easy to use place. It's the easiest thing I've done online.*
- *It was very easy to navigate on the site. They gave an estimated time for delivery and it came within that time. It was a piece of cake.*
- *I didn't have to go to the store for the bulbs.*
- *I didn't have to go find them. That was nice. I have arthritis and it's difficult for me to go out to the stores.*
- *It was very easy to do.*
- *It was very easy to order the bulbs from home and have them delivered. The lower price was more influential.*
- *I prefer shopping online for stuff like this. It was really great how all of the information I needed to make a purchase was all available for me to read in just one location.*
- *The convenience of shopping online was influential because not having to go anywhere made it easy.*
- *I like ordering things online. It's easy to do.*
- *The convenience of shopping online was influential because it's so easy to do.*
- *It was very convenient.*
- *It was very easy to use. The website was easy to navigate around, and shopping online is very easy when you have kids. It's just one less thing you have to get in the car and do.*
- *The convenience of shopping online was influential because I do a lot of eBay. It saves running around and burning gasoline.*
- *It was very easy. My husband, recently deceased, was disabled and I am also physically disabled so shopping online is wonderful.*
- *The convenience of shopping online was influential because it allowed me to browse at my leisure, with no sales pressure, and more time to contemplate my order. I felt secure placing my order online through Duke Energy.*
- *I really like online shopping because it's so easy to get things delivered to the house.*
- *It was like any other reputable company online, no surprises.*
- *I don't like wasting time going to Lowe's. I'd rather spend my time on other things.*
- *It was all about convenience and price. The service is just the high quality I expect from Duke. They're always trying to help you along as a consumer.*
- *I like shopping online because it saves time for me and money. Any time I take the kids shopping with me I end up spending more money on things for them.*
- *I enjoy buying things online because it's easy to having things delivered.*
- *Because I like working through an electronic system. Sometimes word of mouth doesn't influence me, but online information does.*

**Influence of convenience of shopping online: rating "8 or 9 out of 10"**

- *The convenience of it was very influential because I shop for almost everything online. If the bulbs weren't available online I probably wouldn't have bought them.*
- *The biggest factor was price but the convenience was the second most important feature.*
- *I saved gas by not going out.*
- *The convenience of shopping online was influential because I did not have a pressing need for light bulbs; I could wait to have them shipped.*
- *I found it very convenient to not have to go out and look for them. I had looked at Home Depot and didn't find what I needed. Online, I had more information available. I prefer shopping online.*
- *We had the option of going and shopping around, but it was so convenient just ordering them online and having the bulbs sent straight to the house.*
- *The convenience of shopping online was influential because it made things easy.*
- *I find the internet convenient.*
- *It was very easy and convenient to shop online. I didn't have to drive anywhere.*
- *The convenience of shopping online was one of the main reasons I decided to purchase bulbs through the Savings Store.*
- *It was not the top factor, but it was important enough.*
- *The transaction was very easy to complete. I wasn't able to touch it and feel, but I didn't have to go anywhere and that made the transaction very easy.*
- *I liked the convenience for the price.*
- *I would have rather picked up the bulbs at a brick and mortar store.*
- *The only thing that could have made it better was there wasn't as much of a selection of LEDs as I would have liked. If I had gone to a store, I would have had a wider selection of wattages and lighting levels in specifically LEDs. I would have bought more.*
- *The main reason I did it was for the savings, but I did enjoy the convenience.*
- *I could have purchased them anywhere.*
- *I didn't have to leave the house and it was easy. The price was the main driver, but it was nice not to have to run out to get them.*
- *It was really nice to be able to do it at my own time; however my first instinct would be to go to the store. Once I saw it was cheaper, this is why I went to the Savings Store.*
- *It was simple to buy the bulbs.*
- *I do most of my shopping online. When you consider the time and gas wasted trying to get somewhere, it's very convenient.*
- *I think I remember a deal before where I got a coupon and had to go to Wal-Mart to get the bulbs. I went and they were out. That was inconvenient. Here, I didn't have to travel out of my way.*
- *Because it's not that inconvenient to get light bulbs from a store. I saw the advertisement while I was online accessing my account anyways, so I went ahead and took a look at the bulbs and decided that it was a good opportunity to buy energy efficient bulbs.*



- *Everything made it easy to do and save money*
- *I really wanted the low price for the bulbs. Being able to shop for the bulbs online was nice but it wasn't something that really made me want to get these light bulbs.*
- *I couldn't do it myself and I had to rely on my daughter to do it for me. If I hadn't had to rely on my daughter to do it, it would have been a ten.*
- *There was no other way to buy these bulbs other than from the Duke Energy website. Well, it was easy and convenient to shop online too.*
- *The convenience of shopping online was influential because it's so easy to do when I'm busy otherwise. Plus, there were bulbs available at the Savings Store that I couldn't find in stores.*
- *It was so easy, and they delivered right to the door at an excellent price.*
- *The convenience and bulb selection were influential. The Savings Store had the bulbs I wanted but I was annoyed with the inflated shipping cost.*
- *It's a very easy way to order.*
- *It was the price that influenced me not so much buying online.*
- *It was easy to do and it was convenient. I could sit at my computer and do it and not have to go driving around and looking for it.*
- *I liked being able to compare bulbs' features and wattages without having to walk around the store, which was a great help. I was able to compare the Savings Store and Home Depot online at the same time.*
- *It's a bit easier than going to a store. I didn't have to drive to the store to shop for bulbs away from home.*
- *I'd rather click a button than get in my car and go somewhere. And, the availability was influential because these bulbs are not the easiest to find.*
- *I can sit down at home and order them instead of running to Home Depot.*
- *Convenience is important to you when you are older. I was able to research the product online, I could call people with questions if I wanted to, I did not have to leave my house, it was all so easy for me.*
- *I like the convenience of ordering online. It's easier to get the information that you want about the product but it's harder to compare the incandescent bulbs to their CFL equivalent bulb.*
- *I liked shopping online.*
- *Buying online is very convenient.*
- *I like the ease and that's what the wife wanted to do.*
- *I didn't have to go through any effort. I didn't really need all the bulbs.*
- *Online buying was easy.*
- *It was convenient but it wasn't the main reason that I ordered from the website.*
- *The convenience of shopping online was influential because it was easier than going to a store to look for a deal.*

- *You can pick everything you need all at once and have it all sent to your house, it's simple and easy.*
- *I like to shop online. When I've been in stores before, they didn't have what I wanted at a reasonable price.*
- *I like cheap.*
- *There was a wide selection of bulbs available. I got free shipping and the bulbs arrived quickly. Ordering online is easy enough even at my age, and I'm in my mid-70s.*
- *The convenience of shopping online was influential because that's how I prefer to shop. There's often a wider selection and cost ranges available online.*
- *It was very convenience and made financial sense to do it. I do a good deal of purchasing online. It was easy, clear, and quick.*
- *Online shopping is great.*
- *Because of having the options and the ability to see the products and compare the prices. I could also do it at my leisure; I didn't the pressure to make a purchase as I would have if I had driven to a store.*
- *Because I do a lot of shopping on-line. I can compare products and prices without wasting gas and time.*
- *Because it's convenient to shop from home. Sometimes I don't have time to stop at a store and shop for the things I need in a store, it can be a hassle.*
- *I wouldn't have gone to the store to get them. It's too easy to order online and have them show up on my porch.*
- *The convenience of shopping online was influential because I could sit down at home and browse through the selection.*
- *It was easy, convenient, and comfortable. I felt like I got all the information I needed. It was easy to access.*
- *The convenience was very influential because otherwise I would not have purchased bulbs at that time. I would not have used an in-store voucher as readily as I made the Savings Store purchase online.*
- *I like to shop online. I could have just as easily bought the bulbs in a store but I like having things delivered.*
- *The convenience of shopping online was influential because it was fairly easy to do.*
- *All the information was there; it was concise. The pricing and structure needed for quantity discounts was all laid out. And taking advantage of no-cost shipping was also a factor.*
- *It was very easy and I like shopping online. I don't like shopping in stores.*
- *I don't know. (n=2)*

**Influence of convenience of shopping online: rating "6 or 7 out of 10"**

- *I don't mind ordering online but it was really the price and the free shipping that really drove the purchase.*
- *I can buy them somewhere else.*

- *I'm not very computer literate so I had a harder time ordering the bulbs than other people would have had.*
- *I probably would have bought them wherever they were at that price.*
- *I'm somewhat ambivalent about going out and buying things from a store versus shopping online. I'd much rather avoid having to wait for the things I buy to delivered, I don't like waiting for things, yet, I'd rather order something from the convenience of my own computer while I'm at home instead of running around from store to store trying to find what I'm looking for at a good price.*
- *Because I would have preferred to have seen the bulbs physically, though the descriptions were good enough for me to make a confident decision in purchasing the bulbs online.*
- *I like the convenience of shopping online with delivery but I also like to be able to compare what I'm shopping for so I can be certain to get the item that I need.*
- *It didn't have much influence. I just wanted to try it out.*
- *The convenience made it easy to shop leisurely at home and saved me a trip to the store.*
- *The convenience of shopping online was influential, as was my desire to purchase the bulbs directly from Duke Energy.*
- *They could have given you more product reviews; that would have made it easier.*
- *I prefer to talk to people when I order but the description was just as helpful in ordering. I like to have things delivered to the house instead of going to store.*
- *I would have been happy with ordering the CFLs any way: through mail order, over the phone, etc. It was easy enough to order online.*
- *It was convenient, but the price and my energy consultant's advice were more influential over my persistence.*
- *The convenience of shopping online meant it was easy to sit down, peruse the variety, place the order and have it shipped.*
- *It was convenient. I do a lot of shopping online, so I'm used to doing that.*
- *I don't really care about being able to order online. I ordered these bulbs (and other bulbs in the past) before I needed to replace bulbs that had burned out. It was convenient but not a necessity.*
- *I wanted the bulbs that I wanted at a low price. Being able to order the light bulbs online really didn't get me to buy the bulbs. It was convenient but it wasn't necessary.*
- *It was helpful to be able to be at home, but then I didn't get them instantly.*
- *The convenience of shopping online was influential because I would not have known about the Savings Store otherwise.*

**Influence of convenience of shopping online: rating "5 or less out of 10"**

- *I would have preferred to buy the bulbs in-store.*
- *Given a choice, I always prefer to speak with someone versus the difficulty I have when I go to a computer.*



- *I am going to spend my money where I get the best deal. It doesn't matter where I get them from.*
- *The convenience of shopping online was not influential. I don't shop online. I received an informational brochure in the mail about the Savings Store and placed my order over the phone.*
- *Shopping online was convenient but it wasn't as influential as bulb pricing.*
- *Bulb pricing was my main consideration. The website was not very convenient.*
- *I am not fond of shopping online. It's usually a hassle but I will do it on occasion if there is some specific I'm looking for or a good price.*
- *It was pretty good.*
- *Whether I purchase online or have to drive to a store doesn't matter to me - price is my primary consideration.*
- *The convenience of shopping online was nice but not as influential as the price of the bulbs.*
- *I would have been more satisfied with being able to order the bulbs over the phone. I prefer shopping for things by catalog and phone orders with customer service.*
- *I don't have a computer. My sister ordered for me.*
- *I don't mind going to the store. I'd probably be picking up something else for the house at the same time so having to get light bulbs at the store isn't an issue.*

**Influence of convenience of shopping online: rating "don't know"**

- *I have not yet installed the bulbs.*
- *I ordered by phone. I do not own a computer.*
- *I don't recall the online transaction.*
- *I don't know.*

## Appendix I: Participant Suggestions for Other Services

- *I'd like a program that provides a surge suppressor.*
- *Bring back The Question of the Day challenge. It challenged people to try new things and provided information about energy savings. It was fun.*
- *Duke should offer discounts for programmable thermostats.*
- *Duke could advertise their programs and services through social media.*
- *Duke could be more involved with setting the codes for new houses and renovations and new constructions.*
- *Duke could provide a drop off hub and pick up services for recycling old electronics.*
- *If they told me about what the heat loss was from a fireplace that would be good.*
- *Duke could provide free insulation and roofing.*
- *Duke could provide incentives for wind turbine, solar, and/or geothermal equipment purchases.*
- *Duke could provide low cost spray foam insulation services.*
- *Duke could provide recommendations and discounts for trade allies.*
- *Duke could provide tree trimming services around the power lines coming to my house from the pole.*
- *Duke could reduce gas and electric rates.*
- *Duke Energy could develop a mobile app that would allow customers to check their daily energy usage via Smartphone.*
- *Duke Energy could educate children about energy efficiency.*
- *Duke Energy could install Smart Meters to allow customers to monitor energy use in real time.*
- *Duke Energy could provide energy efficiency education to children, young adults, and the elderly. Duke could also provide energy kits to young adults.*
- *Duke Energy could provide energy efficient products for free to raise awareness.*
- *Duke Energy could provide information about solar power technologies.*
- *Duke Energy could provide insulation and weatherization services and/or rebates.*
- *Duke Energy could provide more education about ways to be energy efficient.*
- *Duke Energy could provide solar panel sales and installation. They could also provide water electrolysis (hydrogen) technologies.*
- *Duke should be trimming limbs around all the power lines at least once per year.*
- *Give more information on solar. I would like to know how to sell energy from solar to Duke.*
- *Duke should have a watt meter loan program.*
- *Have an insulation rebate program that the homeowner could apply for rather than the contractor; our contractor refused to apply for the rebate because he said it would cost him money to apply on our behalf, which was the only way he said we could get the rebate. Also, a solar program would be nice.*
- *Have discounts on weather proofing for windows and doors and have the materials at the Savings Store.*
- *Help with comparison of rates from other companies.*

- *I had strike guards at my old house, which I'm not sure I can have here; if I could, I want them.*
- *I know our house could use more insulation, but I don't think this is something Duke should have to take responsibility for.*
- *I would like a program that provides the thermostats that can be controlled via a smart phone not using the internet.*
- *I would like some sort of tracking of what the changes are doing and what they're trying to do.*
- *I would like to see something similar to what Lowe's has, it's this thing call IRIS. It's an application to control your home temperature and lights from an app on your phone or computer. I'd like to see more home energy automation, the ability to set up lighting, heating and cooling schedules from any device.*
- *I'd like information and expertise on alternative generation and sourcing for heating, like geothermal. I'm looking into alternative HVAC solutions.*
- *I'd like to see Duke Energy offer or suggest safe, dependable resources for computer and electronic recycling as well as light bulb and battery recycling or disposal.*
- *I'd like to see them come out and have all the trees properly trimmed or cut down away from the power lines.*
- *If they would put their brand name to solar panels, people would go nuts for them. It would be so much free advertising and would take some pressure off of energy generation from coal plants. If they want to market themselves, they should do so like SolarCity does. Either do residential homes or covered parking lots and rooftops; they can generate a lot of energy that way. They want to spend all this money on regulation and substations, but they need to generate the power at point of use. They could use SolarCity's concept as a model.*
- *Install smart meters.*
- *I would like help in setting up solar in my home. It would be helpful to find out about reputable contractors who do this work.*
- *It would be really cool if they could help me pay for solar panels on my roof, some kind of co-op adventure.*
- *Just continue offering rebates and encouraging people to include energy efficiency measures in and around their homes.*
- *Lower prices.*
- *Make energy more expensive at peak hours and at off hours charge less. This would make customers more likely to use energy when there is less demand.*
- *Net metering.*
- *Note on the bill what to do to keep energy costs down.*
- *I suggest that Duke continues all of the rebate programs for all energy efficiency upgrades to homes or businesses.*
- *Offer more LED bulbs.*
- *Offer solar panels.*
- *Provide a discount on programmable thermostats that are not tied to an appliance cycling program.*
- *Provide a recycling program for the light bulbs such as a prepaid return box.*



- *Provide a waste facility in the house, which is a methane producer and digester. Provide solar panels and interface with the grid without extra tariffs or regulations. Help people make a home that doesn't cost anything for power and have Duke pay them.*
- *Provide insulation.*
- *Provide more information on the pricing of gas so people could better understand their gas purchase. Have a program to pre-purchase gas for the winter.*
- *Provide proactive rebates in the fall for customers to prepare their home for a more energy efficient winter. They could also send out information in the spring reminding people to properly adjust their thermostat, or suggest the top five things to do in or around your home each season to improve energy efficiency.*
- *Provide recommendations on brands of energy efficient appliances.*
- *Push landscaping trees around your house; it's a huge energy-saver.*
- *Provide rebates for adding insulation and better windows.*
- *Provide rebates for new windows and adding insulation.*
- *They could make our street lights outside work better.*
- *They could provide a little more friendly assistance for things like solar panels and distributed energy.*

## Appendix J: Impact Algorithms

### Specialty Bulbs

#### General Algorithm

Gross Summer Coincident Demand Savings

$$\Delta kW = \text{ISR} \times \left[ \frac{\text{Watts}_{\text{base}} - \text{Watts}_{\text{ee}}}{1000} \right] \times \text{CF} \times \text{WHF}_d$$

Gross Annual Energy Savings

$$\Delta kWh = \text{ISR} \times \left[ \frac{(\text{Watts} \times \text{HOURS})_{\text{base}} - (\text{Watts} \times \text{HOURS})_{\text{ee}}}{1000} \right] \times 365 \times \text{WHF}_e$$

where:

$\Delta kW$  = gross coincident demand savings

$\Delta kWh$  = gross annual energy savings

$\text{Watts}_{\text{ee}}$  = connected load of energy-efficient unit = 13.01

$\text{Watts}_{\text{base}}$  = connected (nameplate) load of baseline unit(s) displaced = 49.72

HOURS = Average daily hours of use (based on connected load) = 2.53

CF = coincidence factor = 0.914

$\text{WHF}_e$  = HVAC system interaction factor for annual electricity consumption = 0.9942

$\text{WHF}_d$  = HVAC system interaction factor for demand = 1.167

$\text{WHF}_e$  - the HVAC interaction factor for annual energy consumption depends on the HVAC system, heating fuel type, and location. The HVAC interaction factors for annual energy consumption were taken from DOE-2 simulations of the residential prototype building described at the end of this Appendix. The weights were determined through appliance saturation data from the Home Profile Database supplied by Duke Energy.

**Cincinnati, OH**

Heating Fuel	Heating System	Cooling System	Weight	WHFe
Other	Any except Heat Pump	Any except Heat Pump	0.0029	1.079
		None	0.0002	0
Any	Heat Pump	Heat Pump	0.0760	0.84
Gas Propane Oil	Central Furnace	None	0.0111	0
		Room/Window	0.7571	1.079
		Central AC		1.079
Electricity	Electric baseboard/ central furnace	None	0.0046	0.55
		Room/Window	0.1433	0.64
		Central AC		0.64
None	None	Any	0.0049	1
<b>Total Weighted Average</b>			<b>1</b>	<b>0.9942</b>

WHF<sub>d</sub> - the HVAC interaction factor for demand depends on the cooling system type. The HVAC interaction factors for summer peak demand were taken from DOE-2 simulations of the residential prototype building described at the end of this Appendix.

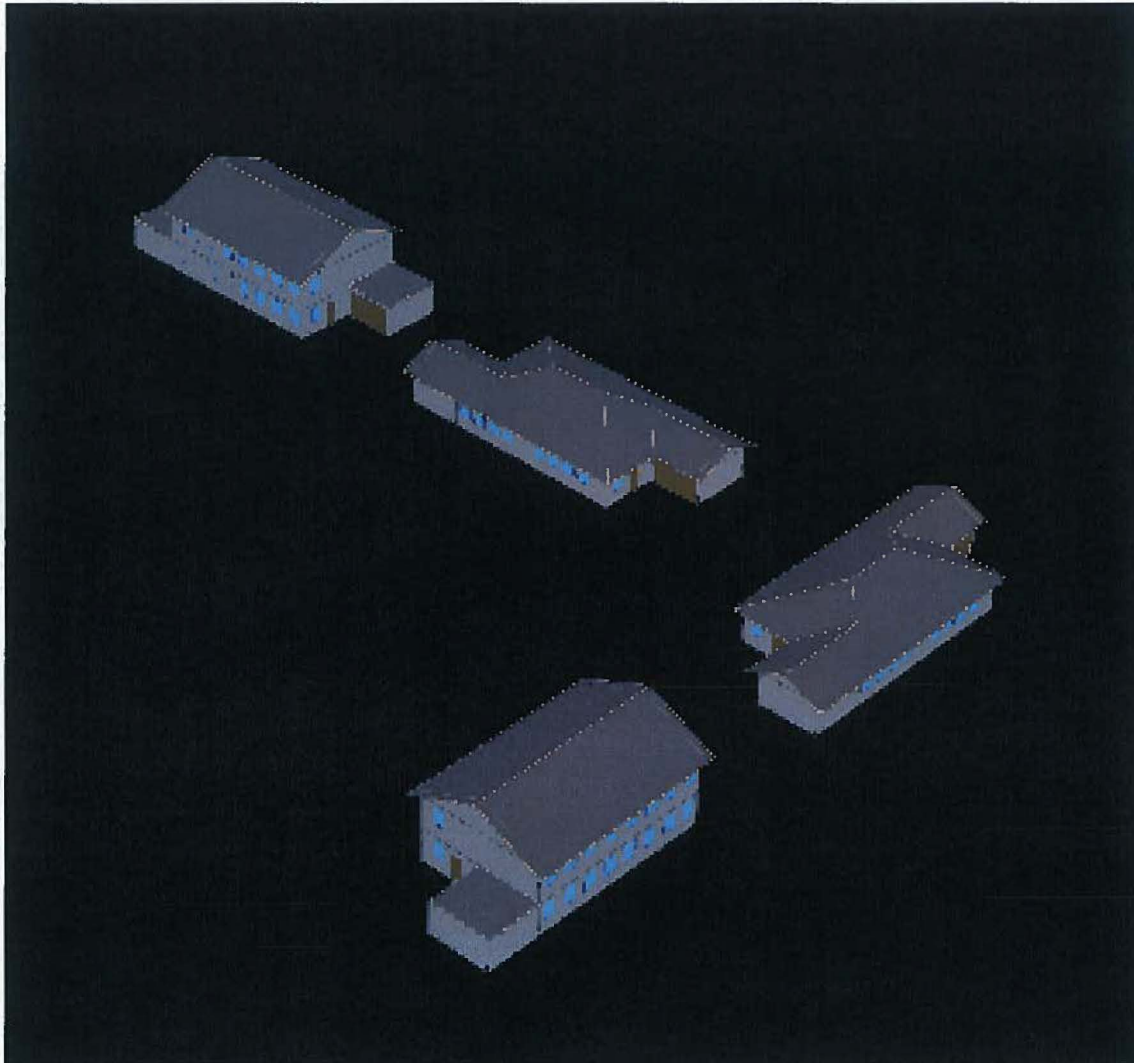
**Cincinnati, OH**

Cooling System	Weight	WHFd
None	0.0159	1
All other	0.9841	1.17
<b>Total Weighted Average</b>		<b>1.167</b>

**Prototypical Building Model Description**

The impact analysis for many of the HVAC related measures are based on DOE-2.2 simulations of a set of prototypical residential buildings. The prototypical simulation models were derived from the residential building prototypes used in the California Database for Energy Efficiency Resources (DEER) study (Itron, 2005), with adjustments made for local building practices and climate. The prototype "model" in fact contains 4 separate residential buildings; 2 one-story and 2 two-story buildings. The each version of the 1 story and 2 story buildings are identical except for the orientation, which is shifted by 90 degrees. The selection of these 4 buildings is designed to give a reasonable average response of buildings of different design and orientation to the impact of energy efficiency measures. A sketch of the residential prototype buildings is shown in Figure 77.





**Figure 77. Computer Rendering of Residential Building Prototype Model**

The general characteristics of the residential building prototype model are summarized below:

**Residential Building Prototype Description**



Characteristic	Value
Conditioned floor area	1 story house: 1465 SF 2 story house: 2930 SF
Wall construction and R-value	Wood frame with siding, R-11
Roof construction and R-value	Wood frame with asphalt shingles, R-19
Glazing type	Single pane clear
Lighting and appliance power density	0.51 W/SF mean
HVAC system type	Packaged single zone AC or heat pump
HVAC system size	Based on peak load with 20% oversizing. Mean 640 SF/ton
HVAC system efficiency	SEER = 8.5
Thermostat setpoints	Heating: 70°F with setback to 60°F Cooling: 75°F with setup to 80°F
Duct location	Attic (unconditioned space)
Duct surface area	Single story house: 390 SF supply, 72 SF return Two story house: 505 SF supply, 290 SF return
Duct insulation	Uninsulated
Duct leakage	26%; evenly distributed between supply and return
Cooling season	Cincinnati – April 27 <sup>th</sup> to October 12 <sup>th</sup>
Natural ventilation	Allowed during cooling season when cooling setpoint exceeded and outdoor temperature < 65°F. 3 air changes per hour

**References**

Itron, 2005. “2004-2005 Database for Energy Efficiency Resources (DEER) Update Study, Final Report,” Itron, Inc., J.J. Hirsch and Associates, Synergy Consulting, and Quantum Consulting. December, 2005. Available at <http://eega.cpuc.ca.gov/deer>



## Appendix K: DSMore Table

Impacts 		Product code	State	EM&V gross savings (kWh/unit)	EM&V gross kW (coincident peak/unit)	EM&V gross kW (non-coincident peak/unit)	Unit of measure	Combined spillover less freeridership adjustment	EM&V net savings (kWh/unit)	EM&V net kW (coincident peak/unit)	EM&V net kW (non-coincident peak/unit)	EM&V load shape (yes/no)	EUL (whole number)
Technology 													
CFL - Indoor Reflector (Recessed)			OH,KY	24.75	0.0029	0.0316	bulb	22.3%	19.22	0.0022	0.0246	yes	8
CFL - Dimmable Reflector (Recessed Dimmable)			OH,KY	41.57	0.0048	0.0530	bulb	22.3%	32.29	0.0038	0.0412	yes	8
CFL - Outdoor Reflector (Recessed Outdoor)			OH,KY	64.04	0.0038	0.0421	bulb	22.3%	49.75	0.0030	0.0327	yes	5
LED - Reflector (Recessed LED)			OH,KY	43.08	0.0039	0.0422	bulb	22.3%	33.46	0.0030	0.0328	yes	12
CFL - Globe			OH,KY	14.30	0.0021	0.0234	bulb	22.3%	11.10	0.0017	0.0182	yes	6
CFL - Candelabra			OH,KY	11.99	0.0014	0.0152	bulb	22.3%	9.31	0.0011	0.0118	yes	7
CFL - Three Way Spiral			OH,KY	33.88	0.0039	0.0429	bulb	22.3%	26.32	0.0030	0.0333	yes	7
CFL - Dimmable Spiral			OH,KY	37.67	0.0044	0.0483	bulb	22.3%	29.26	0.0034	0.0375	yes	7
CFL - Capsule (A Line)			OH,KY	21.94	0.0026	0.0282	bulb	22.3%	17.04	0.0020	0.0219	yes	9
LED - Capsule (A Line LED)			OH,KY	24.30	0.0028	0.0309	bulb	22.3%	18.87	0.0022	0.0240	yes	12
<b>Program wide</b>			OH,KY	25.11	0.0028	0.0306	bulb	22.3%	19.51	0.0021	0.0238	yes	8