- We used to have an easier time with the forms when there was more openness about what was needed. I'd like it to be one page.
- The paperwork is a bit hinky. They should make it more self-explanatory.
- Make it less difficult with the forms.
- Change over to new applications was a bit problematic. I like an easier application if they could.
- It doesn't take a lot of time. Once we got used to it, it's not hard.
- The process is cumbersome. It has to all be done in a certain way and it's kind of a pain. I have to have the sheets that show equipment that qualifies with matching equipment.

Submissions and Corrections of Rebate Applications

Compliance Requirements

After the level of detail required on the rebate application forms, the next most significant cause for dissention among trade allies was the program's strict compliance rules regarding the exact information required on the form. In some cases, trade allies reported being rejected due to clerical errors, incongruence of detail, and minor inaccuracies; in some instances for what seemed to be overly bureaucratic or petty details such as missing middle initials in customer names. Below is a representative quote:

• They're too particular about making the paperwork exactly match the Duke account name down to the middle initial. I mean come on, if everything except the initial is the same, do they really think it's a different person? They should relax the rules on that part at the least.

Despite these strict compliance requirements, other trade ally feedback reveals that the rules are not consistently enforced as shown by the comments below.

• I just don't bother to include the AHRI numbers on the forms. Nor do I bother with the account numbers, and so far all my forms have been processed.

Submission and Confirmation

Trade allies had few opinions about the rebate submission process. Two people offered suggestions for improvement, and these may have been due to a lack of familiarity with what was actually available with existing systems.

• The new website seems to be updated regularly, but it is less than informative. It shows pending correct documentation but doesn't explain what is needed. Sometimes the GoodCents people will call and sometimes they won't so I need to call them. I wouldn't know if there was an issue unless I looked. So they should increase the amount of information on the website and set up some sort of a consistent system for notifying people about what is needed.

• They should make the forms be digital PDFs. They're easier to fill out, read, save, and transfer.

Help with Corrections and Compliance

Despite the rigorous attention to detail required during the rebate submission process, trade allies praised the helpfulness of the representatives that they spoke with regarding any necessary corrections. Only one person felt critical of the phone support provided. All others were positively disposed to the customer service they received as shown by the comments below.

- They aren't very helpful on the phone. When you're busy, you don't have time for bickering over tiny details. Just talk to me and tell me what you need. And they don't sometimes.
- Couple times I filled out paperwork wrong, and had to follow up. They didn't contact me. By then the customer's involved and it's a problem.
- I haven't really needed to call many times but it's okay. Smart \$aver in Georgia is really pretty good.
- No issues at all.
- I have to follow up a lot. The people themselves are kind and helpful and they always call me back. They are great.
- They do call if there's a problem or concern and they are good.
- In the beginning we would call when we had questions and they are great.
- The GoodCents people are good on the phone.
- Their people are more communicative. The phone people are quite good.
- The phone and field people are great.
- They've improved in terms of helping us with any corrections that we need. The phone people are good.
- Sometimes when I send something in they disagree with something need to be changed, they call me and make me do something different that I didn't have to do before. They are great though. I've had no problems with them.
- Okay. I don't call much.

Sending Noncompliance Notices to Customers

A small number of trade allies expressed concerns about the way that the program handles notifications regarding noncompliance. The main issue was that notifications sent directly to customers caused the trade allies challenges with their own customer relations. Although one quote to this effect is shown here, other similar thoughts were mentioned as parts of quotes shown elsewhere in this document. • If there is a problem with the rebate then GoodCents sends us and them [the customer] a letter. Then customers get mad at us and tell us we made a mistake, threatening us that if Duke doesn't pay them then we will need to. It's a mess that could be avoided if they'd just ask us first.

Rebate Checks

Wait Times

Trade allies indicate that the waiting period between the points when they send in the rebate application paperwork and when the checks arrive typically varies from four to six weeks, with some trade allies reporting times of between six and eight weeks.⁵ For most respondents this seems a reasonable timeframe. For others, the perceived waiting period seems too long. For some people this occurred when rebate applications were being sent to the previous vendor and thus required forwarding.

Although this evaluation did not confirm the wait times by reviewing the application dates and the date of the rebate distributions, past experience in these types of studies indicate that trade allies and customers expect rebates to be promptly processed and paid and that wait times of a couple of weeks are acceptable, however wait times of longer than a couple of weeks begins to impact satisfaction scores.

Representative quotes regarding wait times include:

- The checks seem a little slow coming and once in a while customers call us to ask when they'll arrive. We tell them we don't know. To manage their expectations we tell them it can take up six weeks. Otherwise customers are very positive about the program. We even had one referral because a customer was happy about their Duke rebate and told a neighbor.
- My main pet peeve is that my customers ask us all the time when their incentives are coming. We never know. We tell them four to six weeks, but the only way to find out is to email GoodCents and ask. Then they email back and then we can tell the customer. That's just not efficient. They should make it easier.
- In the first six months when GoodCents took over they were slow in processing checks. Sometimes up to two months it seems. But since June of 2012 we've been getting them within four to six weeks.
- I haven't heard any recent problems. They say four to six weeks so I tell people six to eight weeks and that's helped.
- If the application goes in correctly, it comes back fairly quickly. A lot is not how quickly they turn it back, but how backlogged we are.

⁵ Earlier in the report, it was indicated that the total processing time from receipt of application to data entry to approval to the time the incentive checks were sent out was 13 business days. This 4-6 week wait time is therefore reasonable given that it includes time spent in transit for inbound and outbound mail.

- The timing isn't bad. They say it takes about six to eight weeks to get the checks and that's usually accurate.
- It's much better than it was. It used to be eight to ten weeks and now it's usually within 30 days.
- It seems like we see ours within a month. It's fine.
- Sometimes the rebates take forever. Some get paid within a month but other times take much longer.
- We get our \$300 within 30 days.
- Sometimes the mail times seem slow. We see checks dated August 1 that arrive in the mail more than three weeks later.
- The payment process and timing are fine. (3)

Rebate Checks

One trade ally also made comments about actual checks themselves. She appreciated the added detail provided on the checks, and made a suggestion that if several rebate checks were being sent at the same time that they be batched together in same envelope for mailing. Below is her direct quote.

• Check processing is quick and easy. That has changed for the better. The checks they used to send didn't give much detail and now it has the name and property address. That helps. I would say they should just put them in one envelope though and not 20 or 30 separate envelopes when they need to send out that many all to one company. That's crazy. It costs them more in postage and it takes more time for me to open them.

Covered Technologies

We also talked to the trade allies about the technologies covered by the program and other technologies that they felt should be included. The most frequent refrain cited throughout all the interviews was a request to resume rebates on gas furnaces, even if at higher efficiency levels. Otherwise, general opinion held that the current SEER level ratings for air conditioners and heat pumps was appropriate, although some trade allies felt that ECM motor requirement was problematic and a few requested additional coverage for heat pumps.

- The type of equipment they cover is fair. Lowering efficiency standards would defeat purpose of it, but I'd like to see more flexibility on the types of equipment, like matching systems even if there is an ECM.
- They sometimes mean something different than we think with an ECM motor. You have to make sure this equipment meets their stipulation. Vectren gives an extra \$20 for a programmable thermostat. That makes a difference. Duke should cover that too.
- The equipment covered by the program is about right, but they should bring back rebates on high efficiency furnaces. They should also increase the rebates for geothermal. Dayton Power and Light pays \$1600. At \$200 Duke isn't even in the ball park.

- The 14 SEER rating is about right. Obviously we'd like it at 13, but it's better than 15. Although I do think they could offer more for geothermal heat pumps.
- I think Duke should resume offering rebates for high efficiency furnaces. They should also offer rebates for boilers if they're high enough efficiency. I don't have any issues with the ECM fans. Those make sense to me.
- It's just the top end stuff now. It used to be anything over 90 got rebates and now it doesn't. And now you need ECM variable speed motors so it's not as good.
- I would love it if they put back the high efficiency furnaces at 90%. Even 95% and above with ECM motors. That would help a lot. If customers buy a furnace and an AC they'll get money back and 12 months to pay for it. Those are very nice.
- It's a shame about the gas furnaces. If customers replace the furnace and it has an ECM they still can't get the rebate because it's gas.
- It's sad they dropped the gas furnaces from qualifying, and we are only working with AC. The furnace still needs to be changed out but in a lot of cases it won't qualify for Duke even though it's high efficiency.
- It would be nice to go back to the furnaces. That would help a lot.
- Gas furnace should be covered at 90%. That made it a lot easier to get the rebate going and there was more profit on the product. Duke should go back to 90% or better with 14 SEER and ECM motor.
- I think they should cover all heat pumps, not just the 15 SEER. And go back to the gas furnaces.
- Gas furnaces. On AC with 15 SEER you need a two stage motor anyway. Lot of the criteria you have to look at to tell if it qualifies (coil, blower, furnace, indoor, outdoor).
- Gas furnaces should be covered. (3)
- Duke should bring back rebates on high efficiency furnaces.
- The equipment covered by the program is good, although they should bring back the rebates on furnaces. Why not do rebates at 95% efficiency now?
- The equipment covered is the right choice, but we want them to bring back rebates on gas furnaces.
- The equipment covered is fine.

Incentive Amounts

A few trade allies suggested raising incentive levels, but overall they were satisfied with the incentive amounts offered by program. Incentive amounts were explored in more detail during the quantitative survey process. Those findings are discussed in the *Trade Ally Survey* section below.

• Duke would get more customers going for the high efficiency units if they raised the incentive levels. The Greater Cincinnati Energy Alliance and the Kentucky Home

Performance Program used to have a lot of federal money available for high efficiency units, air sealing, attic insulation, and blower door testing. They used to pay \$4,200, then \$2,000, \$1,500, \$1,000, and now it's down to \$500. So a bigger amount from Duke would help. Of course, people are getting tax credits too.

- Vectren's rebate for 95% furnace is a lot more. If Duke kept the \$200 for the 14 SEER and the heat pump and added more rebate for higher efficiency that would make a big difference. AEP in Columbus gives \$350 for 14 SEER, so that makes them more attractive.
- It should be larger since they have to wait for a long time to get that rebate and then it takes a long time to get back the extra cost of the equipment. Some customers it could take 30 years to recoup that cost.
- It's a pretty good number. Even \$250 for the homeowner and the 95% furnace would be good.
- The incentive amounts seem about right. Duke is the only utility that pays contractors part of the rebate. So that's very much appreciated.
- They're fine. They always have been fine. I think they are very generous
- It could be more of course, but it's fine.
- It's not a great deal for the customer, but everything helps to encourage higher efficiency. It's fine. I think it helps a bit, but it's not going to be the deciding factor for most customers.
- Great that it's both. It helps us financially too.
- We do a lot of work in rural areas and people have less money, so it's nice.
- It helps and is okay. Of course I would love it if it was more.
- The \$100 contractor incentive is fine. I used to hate the paperwork, but I'm used to it now. The big thing was that they changed the rules without telling us what the new rules were. They should have made that clearer. I think is probably where the resentment comes from among trade allies.
- The Duke rebate is just one more sales tool. As a standalone it doesn't do much, but when coupled with other rebates and tax credits it makes a difference. Without Duke's program, we'd sell the same equipment, but maybe we'd sell more low efficiency units and fewer high efficiency ones.
- The rebates for new installs are fine.
- Everyone wants more money but the rebate amounts seem fine.
- The rebate levels are fine. (2)

GoodCents Trade Ally Representatives

GoodCents field representatives received generally positive reviews for being pleasant, supportive, and responsive to the trade allies. Two people mentioned that they had not been

visited since GoodCents took over program administration. These and other comments are shown below.

- Our new GoodCents reps have been awesome. The phone support people are also quite good.
- Very good. No problem. They're very good.
- I haven't had a whole lot of need, but when I have had a difficulty I find him very responsive. They are wonderful.
- It's great having one go-to person. I didn't have that before.
- He is very responsive to me and I really appreciate that.
- I never appreciated them before, but our new guy is great.
- They're fine. They leave card and are supportive and always ask if we need anything to give them a call.
- Our field rep is fine.
- I've talked to him a couple times mainly when they changed the paperwork. He's fine.
- [Name withheld] is helpful mostly.
- Their representatives seem OK. They come by once or twice per year and drop off brochures.
- In the last two years we've had two rep visits from guys trying to explain the new \$50 rebate program and what we need to do. I guess they cover the install program too, but there isn't much to say about it.
- I can't say about their trade reps since I'm always selling in the field when they'd be visiting our offices.
- I can't remember seeing anyone.
- Haven't seen anyone for two years.

Time in the Program

We asked interviewees how long they had been participants in the program and what had changed during that time. Participation time frames ranged from three years to more than a decade. The primary changes noted included the shift in program administrators, increased rebate paperwork, and the elimination of the rebates for gas furnaces. Their thoughts are included the following.

- Since it started. We're one of the top Westinghouse dealers. The forms change all the time and it's hard to get into the system. Plus the websites don't have the option for the form available.
- We've probably been involved since its inception. We are under different ownership for the last three years, but have been in business since 1964. The transition went fine. No noticeable change from our perspective.

- We've been in business 35 years and have been with since the beginning. They switched administrators and it's been getting better since then. But since they dropped the gas furnaces that's not as good.
- I've been in the program for more than a decade. The transition to the new administrator was a pain, particularly learning the new requirements and paperwork, but now that it's over its OK.
- We have been a part of the Duke program since 2005. The transition to Good Cents went smoothly. It took a little while to understand the new requirements but it's smooth now.
- We joined in 2007. They don't pay on about half of what we sell that used to qualify, and they've made it more difficult to file the application. It's more time consuming now and they ask for more detail than before.
- We've been in the program for six years. And aside from the new paperwork the change to GoodCents has been an improvement.
- Ever since it started in 2007 or 2008. Before, you could get \$200 for furnace as long as it was 90% or better, and the \$200 for AC was if it was 14 SEER. Now they dropped the furnace. Other than that the new paperwork is biggest change.
- We've been in the program for five years. The GoodCents people are better than [the old administrator].
- About four or five five years. The paperwork has gotten longer and they quit the gas furnaces.
- Four years now. Not that much has changed except that the forms could be better and gas furnaces don't qualify anymore.
- We started the program in late 2011. The transition to Good Cents went fine. The paperwork has gotten much more complicated.
- We joined the program three years ago and we really like it. The transition was confusing. The requirements were different and the paperwork was too. But that's behind us now and we're comfortable with it. So no complaints about that anymore.

Why Trade Allies Participate

As may be expected based upon the program's design, the main reasons that trade allies participate in the program are 1) the extra \$200 in financial help provided to the customer when buying a higher efficiency (and often higher profit margin) unit; and 2) for the direct \$100 incentives that they get for selling higher efficiency equipment. Other reasons included customer expectations and participating in a community that is focused on positive change. Trade allies' individual responses include:

- AC drives our business and the sales situation is more difficult with AC. So the rebate gives customers incentive to buy, and we get a financial reward too. It shows that Duke is trying to help people save energy, which is a benefit.
- It definitely helps us sell some customers that might not otherwise go over the edge. We like the double rebates. Customers get something and we get something too.

- We receive a financial benefit. That's making people more aware of higher efficiency products.
- It makes people in the marketplace be more aware. And you feel like you're in a community that is trying to improve something.
- The additional revenue. We share the reward with customer.
- The customer gets \$200 and we get \$100.
- It helps to move people to get higher efficiency units. It adds up together with other incentives.
- There's money for us too.
- Customers like it. It's a selling feature. Cash back is always a plus.
- It's not lot, but it helps to be able to offer that rebate.

Program's Influence on Trade Ally Businesses

Trade allies indicated that the program has had a modest influence on the type of equipment they sell. Influence was strongest among HVAC trade allies who sell to middle income customers, while somewhat less among those trade allies who sell to wealthier customers with greater buying power for more efficient units.

- The program helps us sell more higher efficiency units with ECM fans. Without it, we'd sell fewer high efficiency units.
- We don't carry a lot of inventory, but the perception that green high efficiency units are beneficial is influential. We make sure we carry those that qualify.
- The program hasn't necessarily influenced the equipment we carry, but it has increased the numbers of higher efficiency units we sell. Without the program, we'd sell fewer high efficiency units.
- The program hasn't influenced the line of equipment that we carry, but it has increased our sales of higher efficiency units. Sometimes that \$200 really makes the difference. Duke should definitely continue to offer the program.
- We've handled same brand for over 50 years. And we get whatever the customer wants.
- We just order what we need.
- The program doesn't influence sales particularly, but I think Duke should continue to encourage higher efficiency.

We then asked the trade allies if their business would change if the program were no longer offered. We posed the question: "If the program were to be discontinued, what would happen to the volume of sales of the high efficiency models?" Trade ally responses varied from anticipating fewer sales to indicating it would make little difference.

- It would definitely impact our business. Duke would be impacted too. We promote Duke through this program so our services reach our mutual customers. People would tend to look elsewhere if they didn't offer rebates.
- If it disappeared it would be a big problem for us. It would be harder to sell and customers might start going to lower efficiency equipment to save money.
- The rebates make a big difference. Our goal is to keep the purchase price of the house down so without the rebates I doubt we'd offer customers the higher efficiency equipment. So it benefits our customers and it makes us look a little better by offering the higher efficiency equipment.
- Overall, I think Duke should continue to offer it, but I don't think they actually need to offer it. It doesn't make that much difference. If Duke didn't offer the program, we'd still sell high efficiency units to people who wanted them. But if people can't afford the low efficiency furnace then the \$200 isn't going to help much to get them to move up to high efficiency.
- Duke's rebates are doing a great job of increasing sales of high efficiency equipment and peak load reductions. Without that, it would hinder us. The government will eventually take the tax credits away too so then it would really affect us.
- Yes it would impact us. Half the customers who qualify today would maybe not have bought a high efficiency unit without the rebate. They would still buy, but not high efficiency.
- We would have to offer some other alternative or let customers go. People don't want to part with their money and we need to get them to do that one way or another. Or you're not going to stay in this business. So we would have to offer them something ourselves.
- The program really helps us to higher efficiency equipment.
- The rebates definitely help to nudge people toward higher efficiency units.
- We would lose a bit, but not that much.
- Not horribly much.

At the risk of stating the obvious, trade allies see their primary goal as generating a profit by installing and repairing HVAC equipment. Providing their customers with higher efficiency units at lower prices is an important secondary aim, and one that provides a competitive business advantage. For this reason, virtually everyone we spoke with expressed a desire that the program continue. These findings lend support to the program goal to increase market share of higher efficiency equipment via rebates and incentives.

Other Suggestions

Trade allies also made a few other suggestions for the program that did not fit in the above mentioned categories, including more free brochures, on-bill financing, the ability to pay the trade ally the customer's \$200 when proof was provided that the same amount had been deducted from the customer invoice, and the desire for specific key account representatives. Specific remarks included.

- Duke might send out info via their bill stuffers, but basically customers don't know about the program unless we tell them. So we could use more free brochures and marketing information. They give us money to buy them, but we do a lot of rebates and we need more. It'd be best if their sales people would just come by and ask if needed anything and then drop more off.
- When we do things with the Greater Cincinnati Energy Alliance we can literally deduct that from the amount the customer has to pay us and then we file the paperwork. Then the Energy Alliance pays us the full amount within one week. If Duke did something like that, it would be great.
- Perhaps they could offer financing on their bills to pay for the higher efficiency equipment.
- They should set up a key account representative system for their biggest trade allies. We do over 200 applications each year. So that would make it much easier for us to deal with just one person who understands our business.

Evaluation Findings and Trade Ally Recommendations

Evaluation Findings

The trade allies we spoke with were overall very satisfied with the program and eager for it to continue. Nonetheless they offered up an extensive list of observations regarding areas for improvement.

The most significant areas needing improvement focused on the level of detail required on the rebate applications and the rigor with which minor clerical errors cause applications to be rejected. Of concern was the impracticality of obtaining serial numbers off the old units being replaced, particularly since time and weather caused the numbers to be unreadable on outdoor units. Obtaining customer account numbers is also problematic for trade allies. The paper forms themselves were also deemed difficult to fill in, and someone requested the ability to use digital forms, not realizing that they were already available online via the trade ally web portal. Another paperwork related issue involved the erroneous belief that the program requires trade allies to include copies of paid invoices.

The level of detail required on the rebate applications appears to be inconsistently enforced with some trade allies being rejected, which others passed inspection without including a customer account number. Trade allies also expressed concerns about the program practice of sending notifications about errors and rejections directly to customers without first notifying only the trade ally in order to provide them an opportunity to rectify the situation. Despite this, the level of phone support that GoodCents provides to rectify mistakes was almost universally praised. GoodCents field representatives were also considered to be responsive, and informative.

Rebate levels are generally considered appropriate as they are. Although several trade allies did request higher incentives. Many trade allies doing business in Ohio requested that furnace rebates be reinstated, even if at higher efficiency levels. Others requested new rebate offerings for equipment not currently covered by the program, including additional types of heat pumps, mini-splits, high efficiency boilers, and programmable thermostats. Wait times for most rebate checks fit within the program's advertised four to six week timeframe with some wait times extending to eight weeks. The majority of trade allies find the wait times acceptable. A few examples of longer wait times were noted, but these seem to have occurred during the 2012 transition phase when rebate applications were being sent to the former third party vendor and then forwarded to GoodCents. One trade ally requested that checks to her company be bundled and sent in batches, rather than sending 30 individual checks at a time.

Overall trade allies are happy with the program and they report that they would sell fewer high efficiency units if the program were terminate. They generally consider the program's rules to be reasonable business requirements that must be observed in order to obtain the incentives. Further findings are discussed in the trade ally survey section below.

Trade Ally Recommendations

The list below presents the actual recommendations for specific program changes and enhancements suggested by the trade allies that we interviewed.

- Simplify the rebate application forms. Or if not, then at least provide an annotated sample form with detailed explanations and have GoodCents field representatives educate trade allies regarding which details on rebate applications are required, which are optional, and why requested information is necessary.
- In light of the fact that the serial numbers from the old units that are being replaced are difficult to obtain consider eliminating that requirement, or at least marking that data field as optional.
- Consider using the customer's service address as the primary means of identification instead of the account number.
- If AHRI numbers are required then provide an easier-to-use alternative to the AHRI website such as a chart or database that makes finding the requisite information easier to obtain.
- Temper the strict requirements that rebate application be "an exact" match, so that stray marks, customer middle initials, and obvious typos do not cause rejection notices when these types of minor inconsistencies exist
- Modify the layout of the printed forms to provide larger writing spaces for data entry.
- Allow extensions to the rebate application deadline upon request.
- Extend the timeframe for trade allies to redress errors and rejections prior to sending notifications directly to customers.
- Increase the information provided on the web portal regarding the information needed to approve rebate applications.
- Provide additional information on the web portal regarding the estimated arrival date of rebate checks.
- Batch trade ally checks together and mail them in a single envelope.
- Educate trade allies about where they can download a digital PDF rebate application forms.

- Increase the rebate levels for heat pumps, particularly geothermal units.
- Expand rebate coverage to other technologies, including boilers, mini-splits, and other high efficiency systems.
- Provide \$20 rebates for programmable thermostats.
- Establish the ability to pay the trade ally the customer's \$200 when proof is provided that the same amount had been deducted from the customer invoice
- Provide customer financing of HVAC purchases rebated through the program.
- Consider reinstating gas furnace rebates, even if at higher efficiency levels.
- Set up a key account representative system for their biggest trade allies.

Trade Ally Survey

To supplement the qualitative interviews discussed above, TecMarket Works completed a quantitative survey 79 Residential Smart \$aver trade allies, including the 20 trade allies interviewed for the section above, plus an additional 59 selected at random from a list of 364 participating trade allies whose businesses are based in Ohio or Kentucky. Those interviewed self-identified as the person within their company most familiar with and qualified to speak about the Smart \$aver HVAC program. A sample of the telephone survey instrument can be found in *Appendix C: HVAC Trade Ally Survey Instrument*.

Trade Ally Activity Level

The survey was designed to assess the opinions of trade allies with a broad range of participation levels. Trade ally activity levels during the previous twelve months ranged from those submitting between zero and 1,302 rebate applications. Among those we spoke with, nearly half (46.9%) of trade allies file 20 or less rebate applications per year, while at the other end of the spectrum 20.2% of trade allies file 100 or more rebate applications per year. The mean number of applications was 76.9, while the median was 20 and the mode was 10. In other words, a high number of trade allies file a relatively small number of rebate applications. This finding corroborates observations regarding the program's mix of participation levels made by Duke Energy and GoodCents during the management interviews.



Figure 1. Trade Ally Activity Levels

While we only asked for a numeric response to this and the following survey question, some trade allies shared voluntary comments to provide additional information to help characterize their replies. Their verbatim remarks are listed below.

- I don't like the new rebate form. It is too demanding and intrusive. From 2008 to 2011, we used to do 100 Smart Saver rebates per year and now we don't offer them unless the customer specifically requests it.
- I stopped promoting the program ever since it began requiring customers to purchase both an AC unit and a furnace to qualify.
- It seems like a lot of my customer base doesn't go for the higher SEER equipment.
- Since they took out the gas furnaces, it has gone way down. This year we've only done 10 to 15.
- We're down since Duke stopped the gas furnaces and now it's only AC.
- It's dropped quite a bit this year because they quit paying on gas furnaces.
- We're down considerably this year due to the gas furnaces being taken out.
- I used to do more before they discontinued offering the furnace rebate.

- Most of our customers are within the Vectren and DP & L service area (as opposed to Duke).
- It depends on the year, and most of our customers aren't served by Duke.
- We service a large area with 3 separate branches so it's hard for me to estimate this.
- Give or take, it depends on how many units we put in and we've only been doing it for the last couple of years.
- It really depends on the year. We've had maybe 10 in the last 12 months.
- We also have an office in Cincinnati and Dayton too. And we're expanding into northern Kentucky.
- At minimum.
- About 20 last year, I think.
- We primarily do commercial work.

Replacement of Failed Units versus Still Functioning Units

Next we asked survey respondents to estimate the percentage of their customers who were replacing failed units compared to those who upgrading units that were still functioning.⁶ Estimates for failed units and still functioning units were asked in separate questions and are shown as different color bars in the figure below. Overall 44.3% of trade allies indicated that at least three quarters of the equipment that they replace has failed, while an additional 15.2% reported that between half and three quarters of the equipment they replace had failed. This compared to a mere 7.6% of trade allies who indicated that half to three quarters of the units that they replaced were still functioning, and 8.9% who said that more than three quarters of the equipment they sold replaced still functioning units. The differences arose primarily based upon the communities served by the trade allies. As may be expected, those trade allies that worked in relatively wealthy areas dealt with customers who were more eager to upgrade for greater efficiency, improved comfort, quieter operations, and other reasons, while those trade allies who worked in moderate to lower income areas saw a high percentage of customers who preferred to wait until the units failed before paying to replace them.

⁶ Note that combined survey responses do not necessarily total 100% since a small number of contractors indicated they also worked in new construction, which was not captured as a separate percentage in the survey.





Additional feedback is noted below.

Failed Units

- All of them are failed.
- Most of them don't upgrade before they need to.
- The percentage fluctuates throughout the year.
- We do get some that are just upgrading.
- We work only in new construction. (3)
- We work only on new construction projects.

Still Functioning Units

- Almost all of the equipment that we replace is over 10-years-old, but I'd say all of them are still working.
- The repairs are just too expensive. At this point, it's better to replace the units to something that is more efficient.

- These customers usually have units that are still functioning in some capacity, but are at the age where they should be replaced.
- They're starting to go bad and need repairs, but instead of paying for costly repairs they go for new units in most cases.
- We also do about 5% new construction.
- We work only in new construction. (3)

Percentage of High Efficiency Equipment Rebated Through Program

In order to determine how fundamental the program's rebates were to trade ally business, we asked survey respondents to characterize the total volume of their businesses' high efficiency sales that were rebated through the program (Figure 3). Responses ranged from 1% to 100% of the high efficiency equipment that they sold being rebated through the program, with a mean of 53%.



Figure 3. Percentage of Equipment Rebated Through the Program

Data distribution reveals that responses tend to cluster toward both ends of the spectrum. On the high end of the spectrum some 34.2% of trade allies filed rebates for at least three quarters of their higher efficiency sales. While on the less frequent end of the spectrum, a near similar

number of trade allies (35.5%) filed rebates for less than one quarter of their high efficiency sales. Stated reasons for why the filed so few rebate applications for high efficiency equipment were limited, since a specific follow up question was not a part of the survey. However, voluntary responses focused on three notable reasons: the trade allies work predominantly in other utility service areas and hence are not selling to Duke Energy customers; the elimination of the Duke Energy furnace rebate hurt their applications numbers; and a dislike for the new rebate paperwork.

Actual comments gleaned during responses to this question are shown below.

- The percentage could have been higher but many of our customers receive alternate rebates through Dayton Power & Light instead.
- The majority of our customers are DP&L.
- Since Duke is no longer rebating giving the furnace rebates, I have less customers for this.
- The percentage was higher in previous years before Duke discontinued offering the rebate for furnaces.
- I used to do a lot more Smart Saver rebates but now have all but ceased (unless a customer specifically requests it). The new rebate form requiring model and serial numbers is too time-consuming and not worth the labor.
- 100% of our residential work was rebated through the program.
- We do a lot of new homes that don't do the rebate.
- That's an estimate.

Estimated Customer Awareness of Rebate Prior to Contacting Trade Ally

One quarter (25.3%) of trade allies estimated that fewer than 1 in 10 of their customers were familiar with the Smart \$aver program before it was discussed at the point of sale. This compared to only 1.3% of trade allies who felt that 9 out of 10 of their customers had already heard of the program. Overall trade allies reported that an average of slightly more than 1 in 4 customers (mean 28%) were aware of the program. The actual range of trade ally estimates spanned from zero to 100% of customers being aware of the program. A full breakdown is shown in Figure 4 below.



Figure 4. Estimated Customer Awareness of the Program

According to the survey respondents that we spoke with, they consistently reported that they explain the program and the rebate amounts to customers during their sales processes. And the most commonly cited reason for customers being previously aware of the program was that the some other trade ally had previously spoken with the customer. A few trade allies felt that customers were aware of the program due to their own research efforts or due to Duke's Energy's marketing efforts. Their supplemental remarks are listed below.

- I don't get too many people who ask for it specifically.
- I think it's 50/50 on how many people know about the program.
- I was able to tell the rest of them that didn't already know about it. We were pleased to be able to offer this as part of the estimate for them.
- Most of them we told about it. We give that information along with our package each time.
- Most of the time the only way they are aware is if they get multiple bids.
- Other trade allies are telling customers who get multiple bids.
- People talk with other contractors too.

- People have heard about the program and questions about it are pretty common.
- Some customers are surprised. Many of the people that are calling in are aware of it.
- Some customers could be aware of it, but it doesn't come up since we basically install the units in all our new homes and the customers don't get the rebates. We do.
- We do use the rebate as a selling feature. We include it on all bids.
- We're seeing more educated buyers looking for higher-end equipment and they've done research usually.
- All my customers thoroughly research their options when choosing geothermal units.
- When he gives the customers the price estimates, he shows them a list of all the rebates available, so I can't be sure which rebates the customer was already aware of.
- Very little.
- Maybe.
- DK/NS

Estimated Percentage of Customers Who Would Have Purchased Higher Efficiency Equipment without the Rebate

The Smart \$aver program is designed so that trade allies introduce the rebates to customers during the sales process. By presenting the information at the point during which customers are considering making the purchase, the rebates are intended to have maximum influence. To determine how effective the rebates actually are, the survey asked trade allies estimate how many customers they thought would have purchased a high efficiency unit without the rebate. Among those trade allies we spoke with, more than half (51.9%) estimated at 9 out 10 of their customers would have made a similar purchase without the Duke Energy rebate. Trade ally responses actually ranged from 1%-100%. The mean response was 78%, while the median was 90% and the mode was 100%. A full breakdown is shown in Figure 5.



Figure 5. Percent of Customers Who Would Have Purchased without Rebate

This finding makes the program appear to have high freeridership, but there are complicating factors involved, including the availability of other monies from tax credits, manufacturer rebates and other incentives, many of which offer more money than the \$200 offered by Duke Energy. Another factor is that relatively few customers are aware of the rebate (a mean of 28% according to the previous question above) before the trade ally presents it. Moreover, other concurrent factors may be more influential than the rebate including the overall price stated by the trade ally, their company's reputation, the unit's efficiency rating, monthly operating costs, and anticipated monthly savings on their energy bills (see *Factors More Influential than Rebate*). Actual quoted replies are noted below.

- \$200 isn't that much. (2)
- I mean, to me, it's a nice deal, but the \$200 doesn't really make a difference.
- Most of our customers are looking for high efficiency equipment because of our business.
- Not the major selling factor for a lot of these customers.
- Our company only sells high efficient equipment.
- We only have a couple of units that are under 14 SEER.

- For most of these customers, the high-efficiency equipment is an investment. The rebate is good on top of that.
- The rebate helps offset the cost difference between the lower and higher efficiency models. We've noticed that more customers are going with less efficient furnaces since Duke abolished the rebate offer for those.
- It depends on what you consider high-efficiency. They would not go to that SEER rating if the rebate wasn't there.
- There are other rebates and tax credits, like the Greater Cincinnati Alliance. (2)
- My boss is the one who discusses the rebates with customers, so don't see what choices they made.
- This is a difficult question to answer. We have 80% furnaces eligible for the program because of our hard winters. We're right on the line, or the border, for offering 80% versus 90%. You go right across the river into Kentucky and it's different. The only time we offer other than 80% is when there's a stainless steel flue in place.
- We work only in new construction. We install the same 96% efficient model in all our homes.
- All our new homes come with high efficiency units.
- All of them.

Rebate Influence on Customers' Purchase Decisions

Since other factors are also involved in the customer's purchasing decision, we asked trade allies to consider the full context of that decision and then estimate the rebate's influence relative to any other factors involved. Trade allies rated the influence of the rebate on a scale of 1 to 10, with 10 being most influential. More than twenty percent of trade allies (21.6%) rated that influence an 8, and a combined 33.8% rated the influence as an 8, 9, or 10. The mean rating was 6.0 with the range of answers spanning from 1 to 10.

While this finding points to a strong perceived influence from the rebate, it is somewhat at odds with the previous finding to which 52% of trade allies estimated that 9 out 10 of their customers would have made similar purchases without the rebate. However, TecMarket Works finds that the discrepancy between these two findings may be explained by the relative affluence of the customer base served by the trade allies, with the rebate having less influence more affluent customers compared on those customers of more modest means, as is hinted at in the comments below.



Figure 6. Influence of Rebate on Purchasing Decision

When a response of 7 or lower was provided, survey respondents were asked to explain why they gave that rating. Their replies are listed below.

- Rebates are pivotal for reinforcing the belief in the importance of high efficiency.
- More last year than this year. Last year that would have been an 8 or 9.
- Most customers are going with high efficiency models regardless of the rebate, though it is a nice perk.
- Everyone likes to get money back.
- A lot of people look at that and contemplate, but if their money isn't straight, or they can't get financing, they drop down to the lower unit. But, it usually sparks their interest and drives them to do more research.
- The rebate could be more influential if the dollar amount was higher and especially if furnaces were again covered by the program.
- The rebate can be influential, because it usually pertains to more expensive equipment.
- The rebate can be influential, especially if the step up to the next higher SEER rating costs \$500 and the Duke rebate reduces that cost by almost half.

- It's money back in their pockets and it's an instant rebate.
- We see a lot of people wanting to see the energy efficient products in their home. They specifically ask for energy efficient products.
- It's a good financial incentive, but not the deciding factor.
- There are other factors.
- Sometimes the customers tend to lean more towards short term savings rather than thinking long term.
- The amount of the rebate is rather small so it isn't a huge factor in customers' decision making process.
- The rebate can be a nice selling point but it is only \$200, which is merely a drop in the bucket in the overall purchase price.
- I figure that at that point in the game, the rebate probably just pushes them over the edge. They're going to spend that money anyway.
- Other factors in the mix.
- So many other rebates.
- It's something anyway.
- Duke used to offer a higher rebates for furnaces and heat pumps. The current amount of the rebate isn't high enough to influence a customer's decision-making process.
- Customers know that by purchasing a new heating unit that they can still save on their monthly utility costs, even if they don't purchase a high efficiency model.
- Most customers need a new system anyways, so the rebate is just a little additional bonus.
- People like to get money back, plus the efficiency of the new unit is a selling point.
- A lot of people don't know about it unless I tell them about it. Some of them say, 'I get a rebate, that's great', but they're not one way or another about it, they want it.
- The people considering a high-efficiency unit would purchase them regardless. The rebate is only an added incentive.
- The rebate does seem to be influential. My customers appreciate it.
- It only adds a few hundred dollars.
- Price is most important and other incentives are more money.
- We sell only York brand.
- In the grand scheme of things, after considering the replacement cost of these units, a \$200-400 rebate isn't very influential.
- My customers have already decided on what system to get and the small amount of the Duke rebate is just icing on the cake.

- It made a difference on a package deal when they the covered the gas. It was more of an incentive then. There's so many restrictions on it now, it doesn't apply to as many of my customers.
- Rebates are not really on people's minds.
- Our customers tend to purchase from us based more on our reputation, knowledge, and quality of service.
- Obviously, \$200 or \$300 is not the deciding factor when considering a \$5,000 purchase, but the rebate helps.
- Customers are more influenced by the long term operating costs of the equipment. The majority have already decided they were going with high efficiency models and the rebate was merely a bonus.
- It's only \$200. When my customers are spending \$5,000, \$8,000, \$10,000, this rebate is a drop in the bucket.
- When they weight the overall cost against the time to recover those cost, the efficient units are not worth the money for most of my customers. I just don't push customers toward more efficient units. In the long-term, it's better for Duke because they're running out of energy, but I look out for my customers.
- When they figure out they can get the rebate, it's something they've come to expect. As soon as hear about it, they realize it's something everyone can get and it becomes an expectation rather than a motivation. Nobody wants to buy a furnace. The only people who are buying furnaces are people who have to buy furnaces. Eight out of ten furnaces already have flue pipes from 90% furnaces.
- The rebate isn't large enough to be influential at all.
- A lot of it has to do with the dollar amount of the rebate. When you're talking about a purchase based on dollar amount, such as a \$5,000 or \$6,000 set up, or a \$16,000 solar system, \$200 or \$300 is a drop in the bucket. This rebate probably has minimal influence.
- There is no rebate benefit to the customer as far as new construction goes.
- Due to the higher demands of the latest rebate form, we do not process Smart Saver rebates unless the customer specifically requests it.
- Because \$200 is nothing when you're talking \$10,000 to \$15,000 jobs. It's a very poor dollar amount to talk about.
- They're purchasing the whole new home and the furnace and rebate are too small to be relevant.
- Overall purchase price is the most influential factor.
- I have ceased promoting the program.
- It's hard to say because high rebate incentive Alliant and Greater Cincinnati were offering up to \$4000 at one point, which had a lot more influence than the \$200. We offer the customer all of the rebates as part of a package.

Some survey respondents who gave responses or 8 or higher also volunteered additional information with their answers. Their feedback was as follows.

- Our customers are looking to save money wherever they can, so the rebate is influential.
- When customers are informed of the rebate they tend to go with it.
- Customers like rebates.
- People appreciate the \$200 savings.
- We mention on quotes, but other rebates are also a factor.
- The rebate helps cover the cost difference between lower and higher efficiency models.
- Customers love getting money back, be it from Duke, or the government, or the equipment manufacturer.
- I think anything that saves a customer money can be influential.
- Most people, when you tell them they'll get a rebate, they say to go for it. That way, they get a little something back.
- Any mention of a rebate, no matter how small, seems to trigger a positive response in customers.
- People like getting money back in the form of rebates.
- Once a customer hears about the rebate they typically go for it unless they don't have enough funds to afford a high efficiency unit.
- It helps, it definitely helps.
- The rebate i.e. getting money back is helpful.
- Customers are typically buying new units out of necessity and they appreciate the rebate.
- We work only on new construction projects.
- The rebate is a nice perk for a lot of customers.

Factors More Influential than Rebate

The survey followed up with a question asking trade allies to list any factors that they felt were more influential than the rebate. The most popularly cited factor was the overall purchase price (36.7%). This was followed closely by trade ally reputations (31.6%) for quality service, often backed by positive word of mouth referrals. These top two responses were succeeded by four additional financial motivations that combine to total 64.6%, including: efficiency rating (19%), tax credits (17.7%), monthly bill reduction (15.2%) and equipment operating cost (12.7%). Figure 7 shows all factors considered by trade allies to be more important than the rebate.



Figure 7. Factors More Influential than Rebate

Fourteen percent (13.9%) of survey respondents provided an "Other" response. The most common responses mentioned the quieter operations of the new units and the overall comfort levels the new units provide. Specific responses consisted of the following:

- Comfort.(2)
- Quieter unit. (2)
- Air quality and evenness of the temperatures, the humid level.
- The comfort and quiet operation that a new HVAC unit provides.
- Unit reliability.
- Perceived value.
- There's been a lot of advances made in the equipment in the last 10 years, so more modern features.
- Purchasing a highly efficient model tends to empower the customer and makes them feel good.
- We create new construction and our customers are more concerned with other things such as kitchens, bathrooms, etc.

Estimated Percent Customers Who Opt for Lower Efficiency Unit after Learning of Rebate

One way to calculate the effectiveness of the \$200 rebate is to consider how many customers do not take advantage of it once they are made aware of the opportunity. When we asked the trade allies this question 27.8% of them estimated that fewer than 10 percent of their customers opted for the lower efficiency unit after learning about the rebate. Overall, they estimated an average of 23% of their customers opted for a lower efficiency unit. Stated conversely, this shows that trade allies estimate that an average of 77% of customers select the higher efficiency equipment after learning about Duke Energy's \$200 rebate offer. A full display of the findings is shown in Figure 8 below.



Figure 8. Percent of Customer Opting for Lower Efficiency Unit

As noted in the previous survey question, the final purchase cost of the new units was a primary motivating factor among price-conscious customers, particularly among those customers who feel they are stretching themselves financially and among landlords buying new or replacement units for their rental properties. This and other feedback is noted below.

• A lot of it just deals with the cost. I mean, I'm an employee and I went for a 15 SEER instead of a 16 SEER because of the price difference.

- And, going for the less expensive option is not just happening with rental properties. I've seen an increase in this.
- If someone is only replacing the AC they won't be concerned with high efficiency if they don't have an ECM motor. Other than that it's mostly rental units.
- If they can afford the higher efficiency units they buy them.
- It would depend on the cost. Once the high-efficiency equipment is already in there, it would be hard for the customer to pay more to replace it with a different, lower-efficiency model.
- It's harder to qualify for just an AC unit with an existing furnace.
- It's very low.
- Most of the people were older people wanted the cheapest priced equipment they could get. They're retired and don't want to have to replace the units. They wanted something that would last.
- Mostly driven by cost.
- My boss is the one who discusses the rebates with customers, so I don't see what choices they made.
- Probably.
- Rental properties won't put in the highest quality equipment.
- Some customers just have to put in what they can afford.
- The rare exception to installing high efficiency units would be if a customer didn't want one and specified it. It's very rare but not quite zero.
- There's a big segment that will go with the cheapest thing they can get.
- We don't offer our customers a choice in the type of unit we install.
- We install high efficiency models and don't typically offer our customers a choice.
- We still have a lot of 13 SEER replacements on AC units.
- When they weight the overall cost against the time to recover those cost, the efficient units are not worth the money for most of my customers. I just don't push customers toward more efficient units. In the long-term, it's better for Duke because they're running out of energy, but I look out for my customers.

Helpfulness of Rebate for Selling High Efficiency Equipment

Next we asked trade allies to use a similar 1 to 10 scale to rate how helpful the rebate is to their company's ability to sell higher efficiency equipment. A sizable 21.5% of trade allies rated the rebate with a top two box score of 9 or 10, and a combined 58.3% rated the rebate's helpfulness as a 7 or higher. The mean response was 6.6. Thus, even though some trade allies felt that the \$200 customer incentive was fairly small compared to the overall purchase price, they nonetheless found the rebate to be helpful in completing the sale of high efficiency units.



Figure 9. Helpfulness of Rebate for Selling High Efficiency Equipment

Those who provided responses of 7 or less provided the following reasons for their scores.

- It just adds to help offset the costs.
- The ability to offer rebates is helpful in sales.
- It is helpful because customers like saving money.
- The rebate is helpful because it can supply that extra little incentive for a customer to purchase a more energy efficient unit.
- Anytime a customer can save some money is a plus. Many of our customers are not supplied by Duke Energy.
- Anytime you can tell someone they'll get money back is helpful.
- You're able to peak their interest with it or usually sell them on the furnace when you can show them there's a rebate available.
- Customers always want something back. Anything you can give them extra, it really does help. The rebate no longer covers gas furnaces, so that makes a difference.
- The rebate is helpful, especially when a customer is already thinking about purchasing high efficient equipment.

- It's helpful. It's nice to just be able to knock it off the top, so they can see a savings right away.
- The rebate helps show people the immediate and long term cost savings associated with purchasing a higher efficiency model.
- Part of our business profile is to encourage high efficiency equipment. Incentives are also nice for us and the customers.
- It adds to the other rebates.
- \$200 doesn't make up a \$1000 price spread to the more efficient equipment.
- Last year it would be a 7 because we can't get some of the equipment covered that we'd like.
- I think that if they can see some return on their investment, that's really the most influential factor. But, anything to help offset the cost really helps and it can really make a difference on an \$800 system.
- I listen to feedback from my customers and they do seem to appreciate the rebate.
- It helps but other things help more. Although it used useful for showing the importance of high efficiency
- The low amount of the rebate isn't much of a selling point.
- I'd say that the biggest selling points are laws requiring high efficiency models, unit longevity, and then the rebate.
- The \$200 rebate is a nice bonus that can help sway customers towards higher efficiency units.
- If it was just on more expensive equipment, such as a \$2000 system, that \$200 doesn't make much of a difference. But, as part of a package of incentives we can offer, it works. The customer's always going to be glad to get a little something back.
- People don't know about the program. We didn't even know the program was out there until we were told by a customer a couple of years ago. We weren't informed by Duke. And, do I have time to search the web and find this information? No.
- The efficiency rating of the unit seems to be more influential than the rebate.
- That's just the way my company is; we sell high-efficiency equipment.
- The biggest reason was the tax incentive, The Duke rebate was the cherry on top, so it was nice to be able to offer it, but the real influence was getting something back on their taxes.
- We don't understand it that well, all the information they ask for, and it's very timeconsuming.
- Duke's isn't that big of a rebate.
- The amount of the rebate is quite small compared with the overall purchase price. It doesn't affect sales very much.

- It made a difference on a package deal when they the covered the gas. It was more of an incentive. There's so many restrictions on it now, it doesn't apply to as many of my customers
- It's not that much money.
- Most people really aren't that concerned about it. They're more concerned with the end price, the out-of-pocket. Most people would have a really hard time realizing the cost over time for a higher efficiency unit. I tend to be much more honest with my customers and I don't push them to purchase the higher-efficiency units when they can't afford them.
- People would rather the rebate were immediate rather than taking several weeks to process.
- If they're looking for high efficiency stuff, they're not dying for that \$200 to \$300 rebate.
- If you could spend twice the money for a top of the line furnace, what's \$200 to you?
- I don't think the rebate is all that helpful because most people are predetermined to purchase high efficiency equipment.
- High efficiency furnaces should again qualify for the program. The amount of the incentive could be made proportionately larger for higher efficiency models.
- The Federal government offers a higher incentive, so that is more helpful.
- I'm no longer actively promoting the program.
- As a builder of new construction, we decide what type of unit goes into the homes we build.
- The rebate is no help at all. I had forgotten that it even existed. My customers, primarily landlords, are more concerned with the upfront cost of the unit rather than long term energy efficiency.
- It's not a factor since we get all the rebate dollars.
- I am not a salesperson.
- From 2008 to 2011 the rebate was very helpful, but the latest rebate form isn't worth the labor and hassle for us to process it.

Those who offered scores of 8 or higher provided the following additional comments.

- Anything that helps make the sale is appreciated.
- The rebate isn't the main factor but it does have some influence on people's decisionmaking process.
- Customers appreciate getting a little money back in the form of a rebate.
- The rebate is helpful because it helps lower the cost of the unit, which is a great selling point.
- If they need it, they're going to get it, but it's nice to be able to offer the rebate. It's the icing on the cake, so to speak. They get a little something back, which helps.