

# RESEARCH OPEN HOUSE

STUCKEMAN SCHOOL

Architecture  
Landscape Architecture  
Graphic Design

## ENERGY+

### CREATING A RETRO FIT PROGRAM

AUTHOR: KRISTINE LUTHER

#### ENERGY+

Creating a retrofit program for your area can be a challenge and includes many steps, including researching the area. The research below has been gathered from other existing programs in different locations and will cover: what a typical audit would look like, how it is completed, and what oppositions there may be for upgrades. This process will help determine the best program for your region or area.

#### FLOW CHART

Based on the information gathered from above, a flow chart was constructed. First, we determine the criteria for who is eligible for the program or we make the program available everyone. There could be a special program for those of low-income status. Then we determine the reason for the improvements, whether the customer requests them or whether the customers are polled for feedback. The reason for improvements can include appliance failure, lack of comfort, or having incentives. We begin the process of determining the type of funding for which the customer is eligible. Next, we begin the utility bill review and/or energy audit. From this step, we can determine what upgrade oppositions would be best for the project and the customers. Upgrades can include appliances, envelope, HVAC system, or a mixture of these. Once we identify which upgrades would be appropriate, we can begin a cost comparison for implementing the upgrades (Figure 2). We can also determine possible payback periods and savings (Figure 4), and create different levels of upgrades with pricing options (Figure 3). After determining the upgrades that should be made, we begin exploring payment oppositions and determine how much of the cost will be out of pocket. Next we will be creating a bid with all the specifications and details included. During the construction phase work hand and hand with the contractors and the auditor. We must remember that each project is unique and that we may have to change the process slightly for different projects.

