



# Energi

Sustainable Energy Mobile AR App

**Presented By:**

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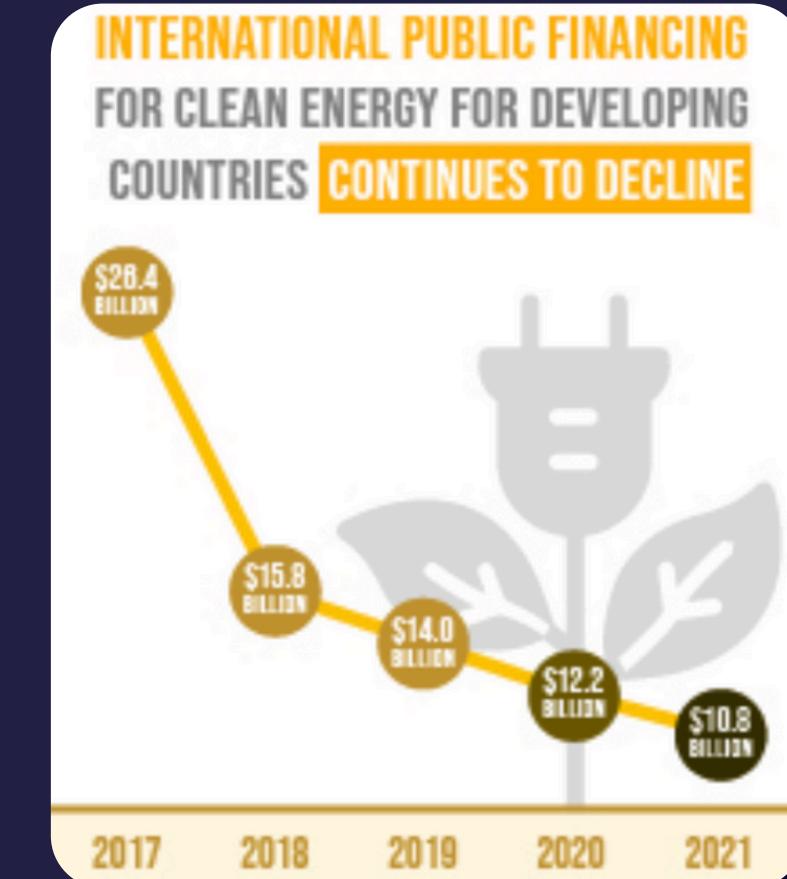


# Design Challenge



## SDG 7

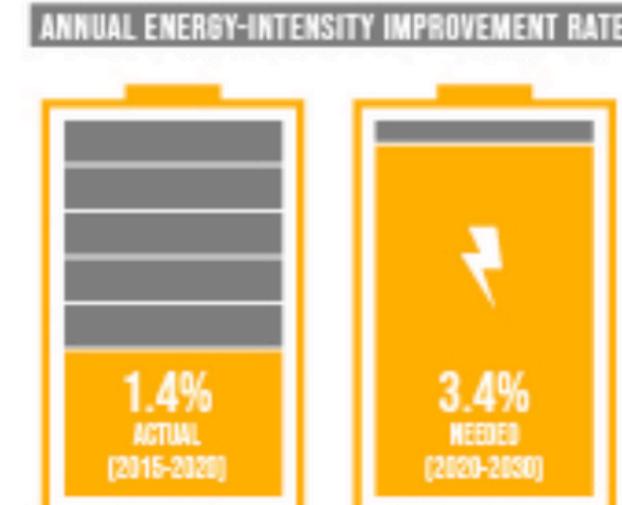
Sustainable Development Goal 7  
(SDG 7)  
affordable, reliable, sustainable  
and modern energy



Only 1.4% had adopted to energeny efficiency in 2015-2020

Would Augmented Reality(AR) be able to save the energy bill?

ENERGY EFFICIENCY IMPROVEMENT MUST MORE THAN DOUBLE ITS PACE





# Target Audience



College Students

# Meet: Jack Smith



## Jack Smith

<b>Age:</b>	23 yrs
<b>Gender:</b>	Male
<b>Location:</b>	Hayward, CA
<b>Occupation:</b>	Student

## Goals

- Wants to reduce energy usage
- Wants to save money on his electric bill
- Implement more sustainable energy methods in his day-to-day life
- Replace high-energy appliances with more energy-efficient models

## Pain Points

- Doesn't understand current energy usage
- Confused on why his energy bill is so high
- Is not very aware of many sustainable energy methods

## Current Behaviors

- High energy use throughout the day
- Uses majority of energy during peak hours
- Little understanding of current energy usage

**"I want to change my habits, but I struggle to visualize my progress"**



# Research

**How much  
energy do we  
waste?**

**Why do we  
waste  
energy?**

**What is the  
average  
energy use?**

**How can we  
change this  
behavior?**



# Research

**Cognitive factors are the most significant predictors of behavior change**

**Residential sectors have increased energy use every year**

**Three largest categories:**

- Air conditioning
- Space heating
- Water heating

**The U.S has an energy efficiency of 42%. Wasting 58% of energy produced**



# The solution

An app that utilizes augmented reality to positively change users behaviors

## Main Goal

“A way to visualize your energy use and meet your energy goals”





# Key Screens



# User Testing

## Main Takeaways:

- Basic understanding of the app
- Confusion about how the scan functions
  - Colored outline indication
- Graphs are appealing, but not super clear
- Too many buttons
- No appliances page
- Rehaul Education page to be more intentional





# Iterating

## 1. Scanning component is more intuitive

Adding an icon that tells the user to pan the camera around rather than a button

## 2. Making graphs more understandable

Adding more labels and minor layout changes for better readability

## 3. Appliances Page

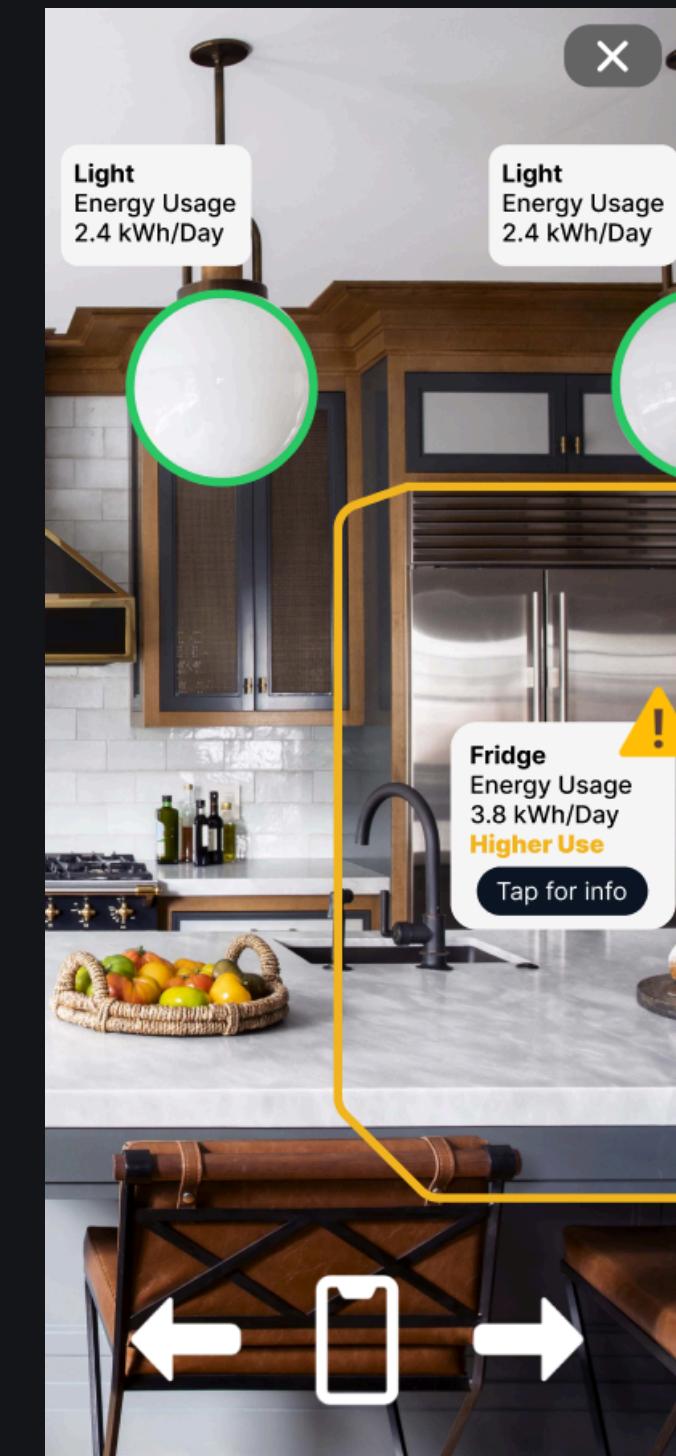
Adding a page for the user's list of appliances and a power button function for more convenience and efficiency

## Scan Screen

### Before



### After





# Iterating

## 4. Education page overhaul

Making the education page more intentional & better suited for the user's needs

## 5. Achievements page

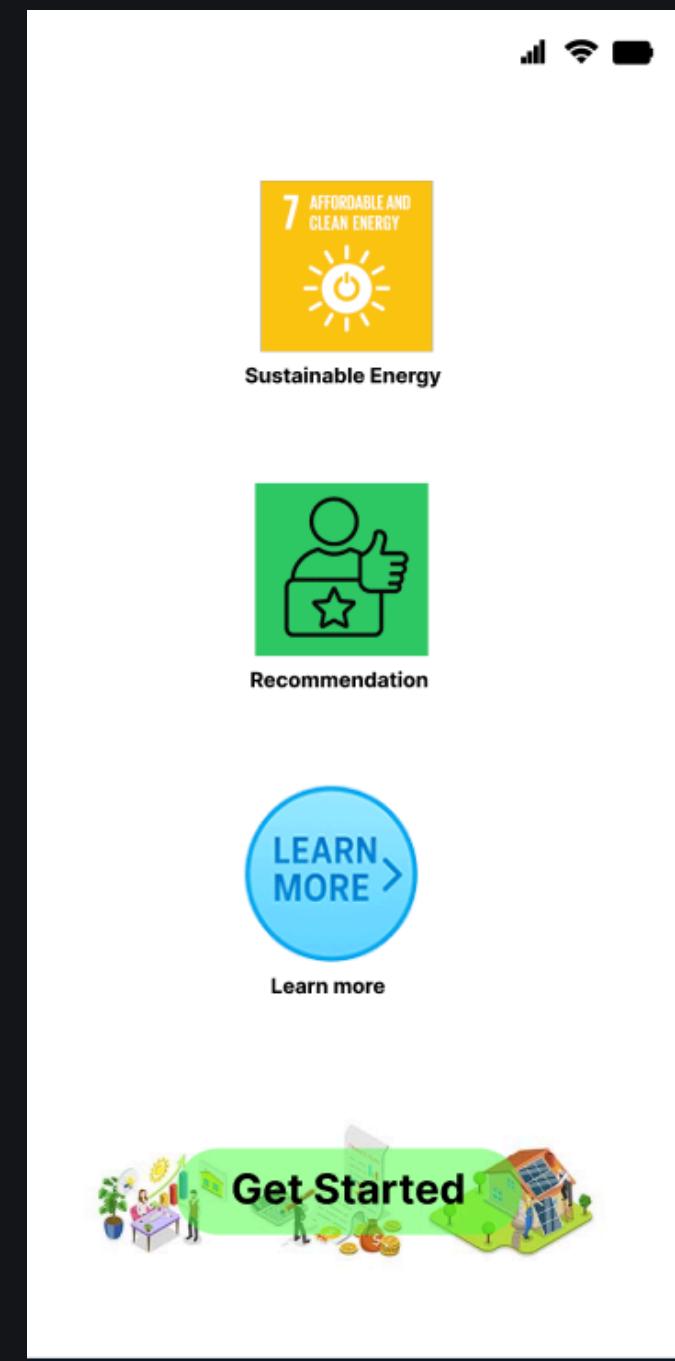
Layout changes and descriptions for the achievements on how to obtain them

## 6. Less buttons

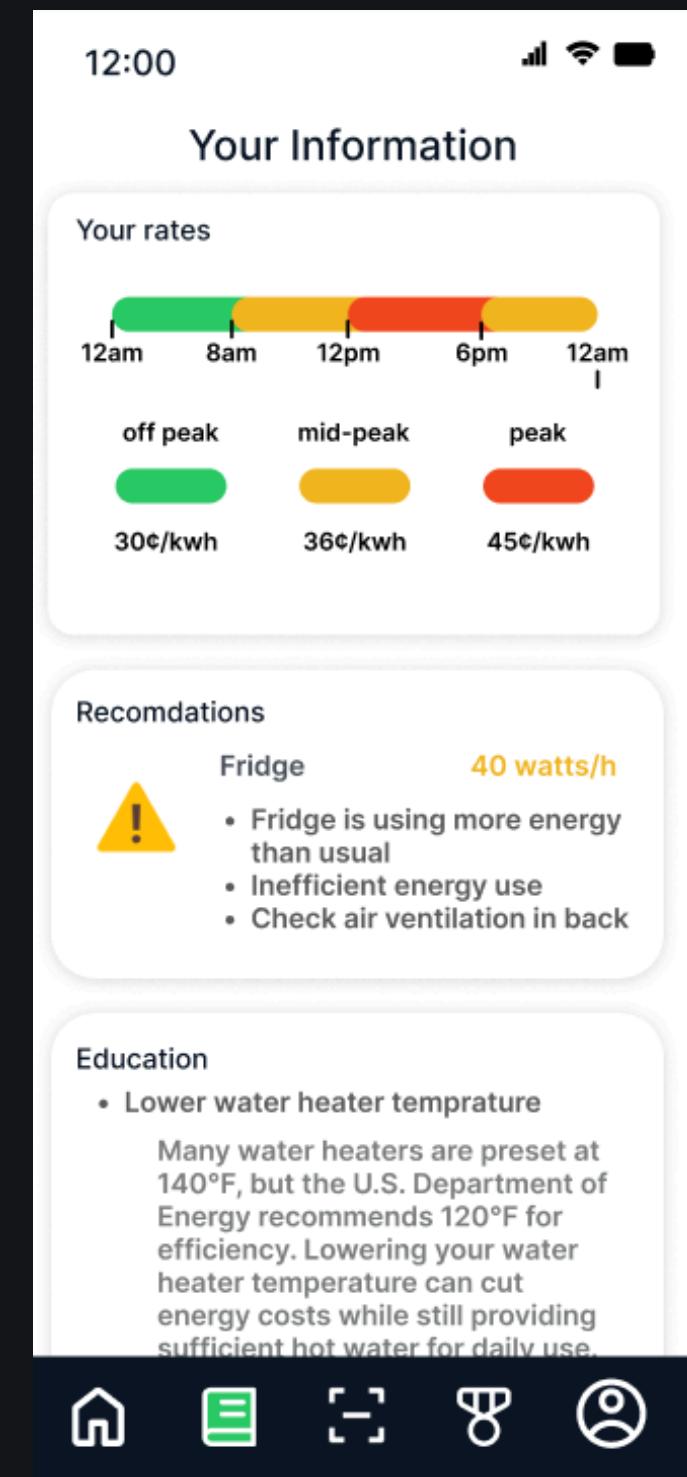
Removed buttons that were unnecessary and placed the remaining ones in more conventional ways

## Education Page

### Before



### After





# Reflection & Future Vision

## Finetune Process

Streamline the use of the app to make it easy for all, while being intuitive no matter your experience with tech or energy.

## Smart Meter Connection

Implement a connection with your home smart meter to control appliances while away.

## Wider Sustainable Energy Focus

Add more interactive tutorials to install and use sustainable energy, and have a wide range of alternatives



# Thank you for your time!

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