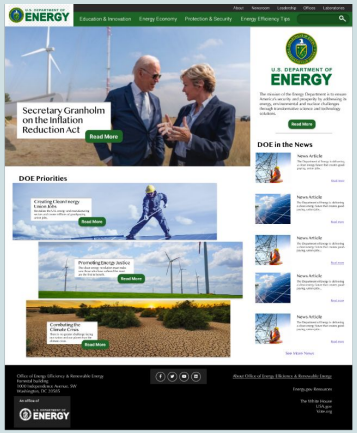
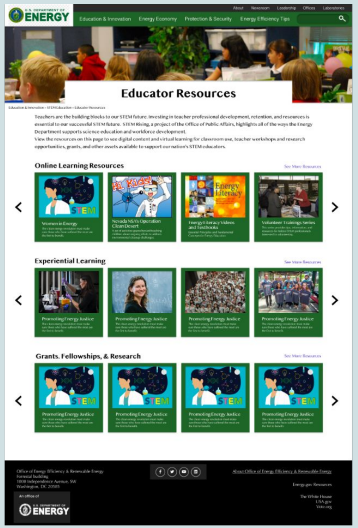
# Energy.gov Redesign

## Department of Energy

Elise Mary Lanigan





# Project Overview
## DOE Redesign

**Problem:** The current Department of Energy website is full of great materials, but many of them are outdated and difficult to locate amidst the extensive sitemap.
**Solution:** A simplified sitemap and easy-to-navigate design for the DOE website would empower users to find current news and updated information to share with their students and/or peers.

**UX Designer** - Elise Mary Lanigan
Team Members for User Research - Nick Peterson & Edward Feldman
**Tools:** Figma, Miro, Pinterest, Invision

# ENERGY.GOV
## user interface analysis

Elise Mary Lanigan | Nick Peterson | Edward Feldman

module 8

# proto persona

## Humanize

Margaret Tschida

Middle school science teacher

Aged 54

## Behavioral Demographics

Married with 3 children

Passionate about the environment

Master's Degree

Not super tech savvy

Lifelong learner

## User Goals & Needs

Provide age appropriate and accurate info about energy sources and consumption for her class curriculum

Easily find information from a trusted source without having to spend too much time

## User Pain Points / Frustrations

Only finding adult-oriented resources

Current curriculum isn't up to date with the climate and renewable energy advancements

Feeling a responsibility to teach about energy issues but not having the resources to do so

https://this-person-does-not-exist.com/img/avatar-927b020568b3d648f173a4b076f424af.jpg

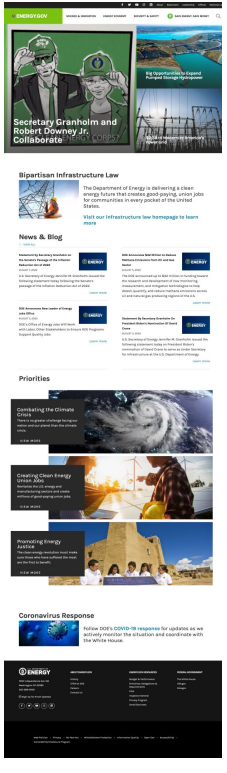
# Our typical user path

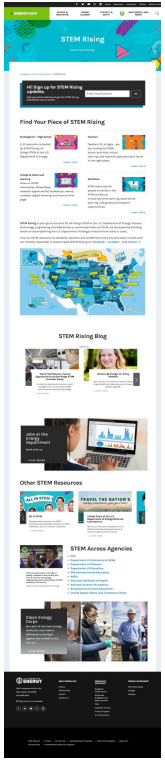
Our user, Margaret Tschida, visits the Energy.gov website to find resources for her middle school science classroom. The current materials they have are outdated, so she wants the most up-to-date and age-appropriate information to teach her students about renewable energy.

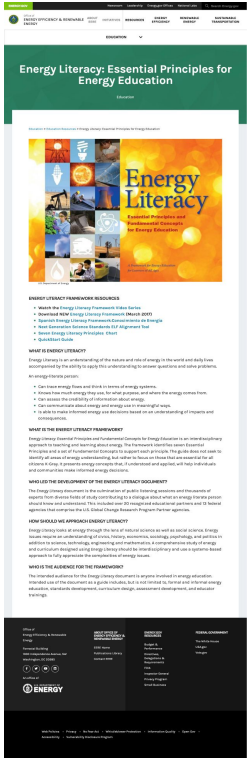
link

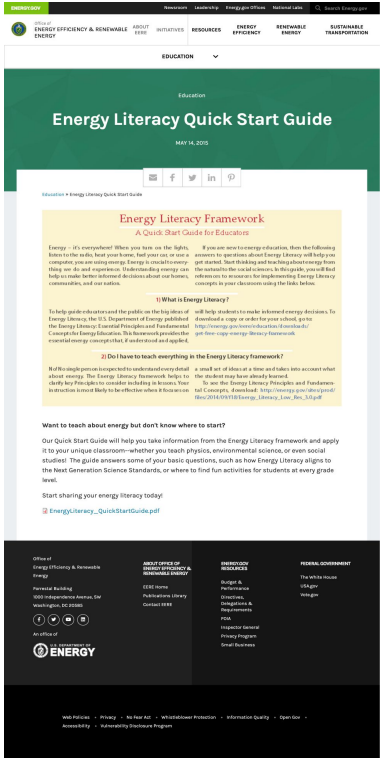
# user path

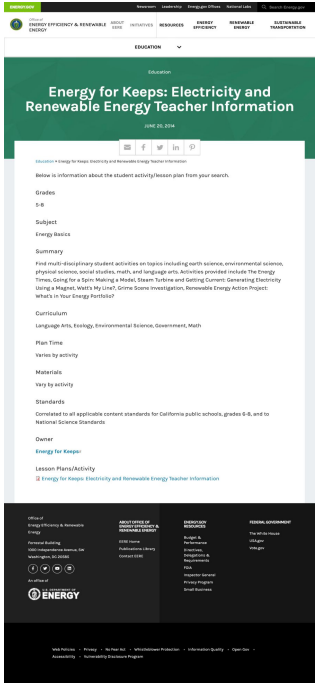
[Figma link]

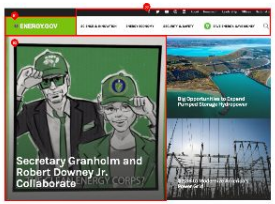


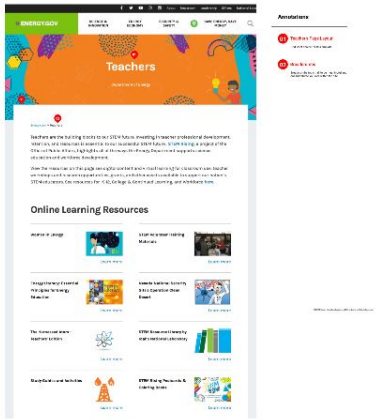



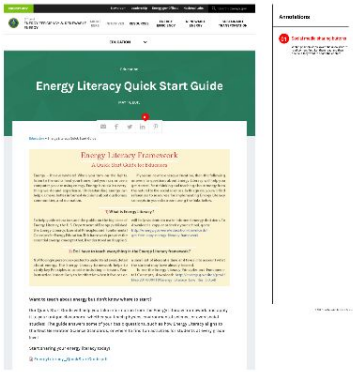



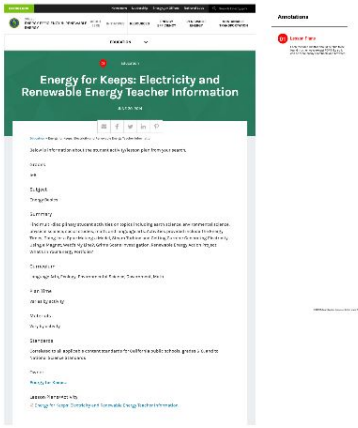



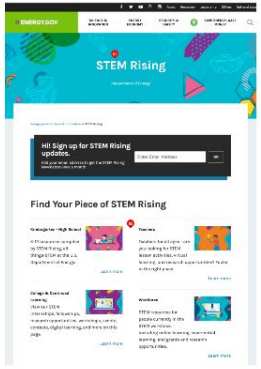



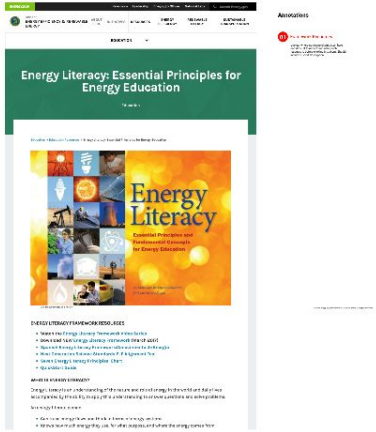


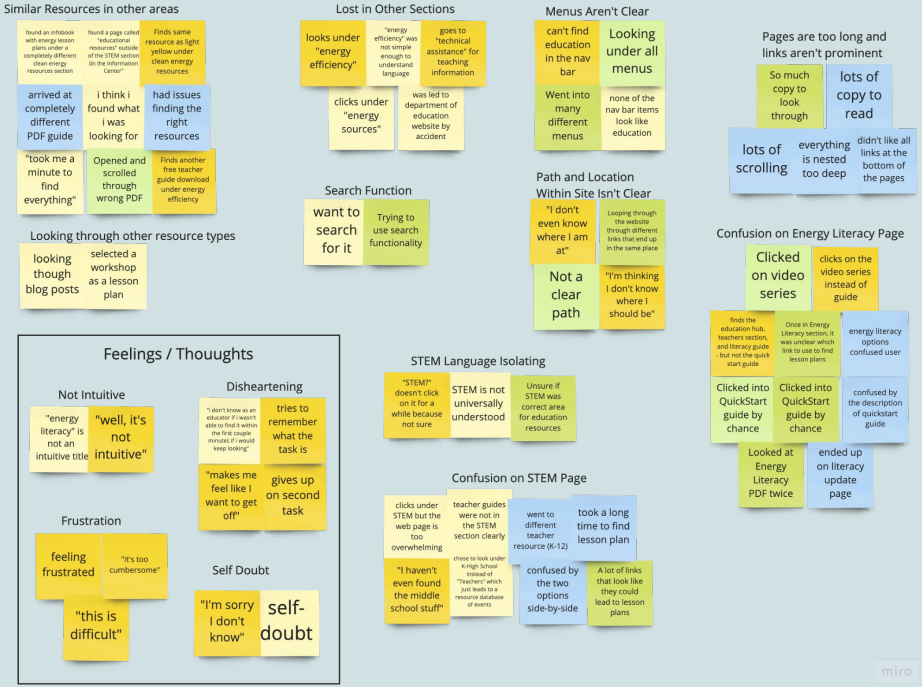


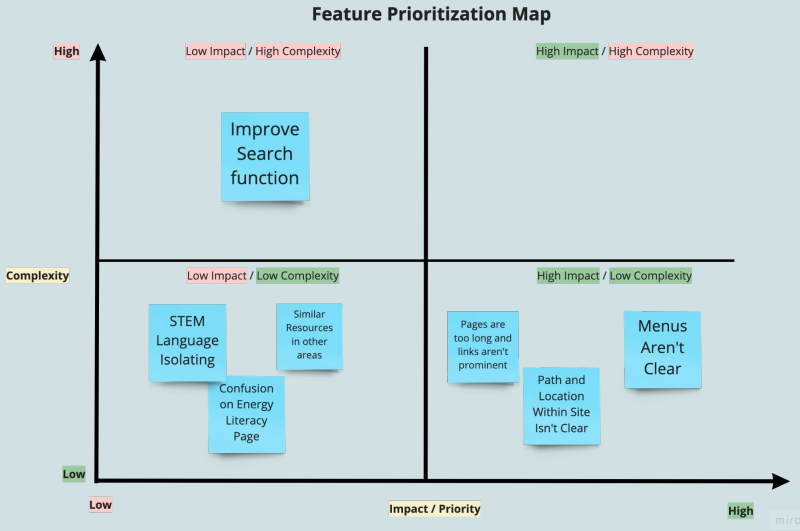



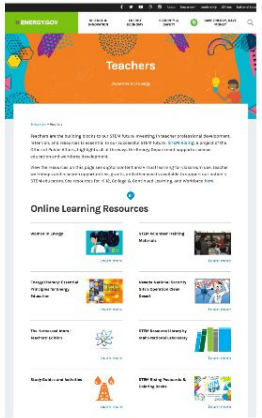
[pre-user test redline]

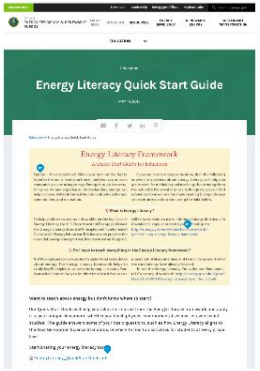
# testing results

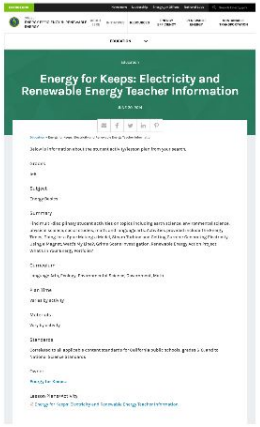
[Link to miro board](#) [Link to recordings](#)

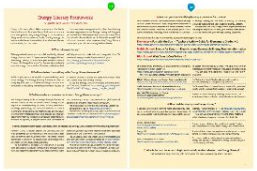


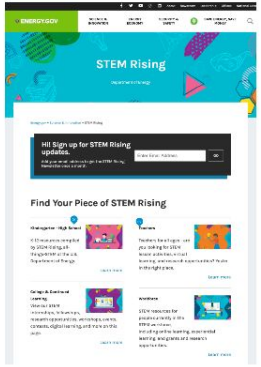



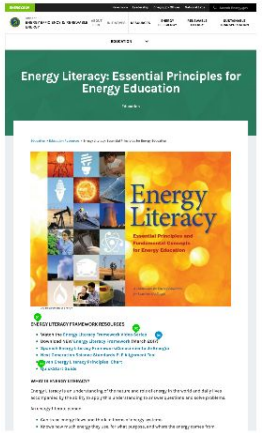







post-user test redline

# mood board

[link]

# ENERGY.GOV
## user interface analysis

Elise Mary Lanigan

module 9

# heuristic evaluation of navigation

[link]

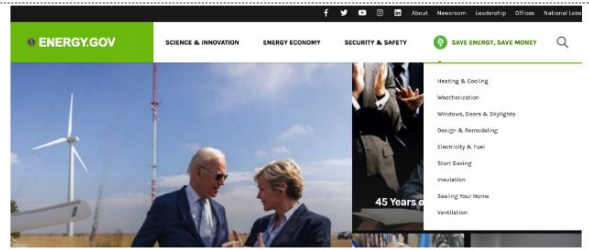
**Heuristic Evaluation of the Website Navigation**

For the top bar of navigation, I wouldn't make too many changes. For one, I don't think linking out to various socials needs to be at the very top of the page. I would probably move this to the footer in order to not have too much content to sift through at the top of the site. Otherwise, I think the "About, Newsroom, Leadership, Offices, and National Labs" are appropriate links to have slightly less emphasis. For the four main navigation screens, I would mostly keep them the same, but change the wording slightly. Since our users had such difficulty finding the education hub, I would rename the first dropdown "Education & Innovation" since science doesn't give much more information than innovation. I think "Energy Economy" is appropriate, but the next two could be a bit clearer - as I'll get into below.

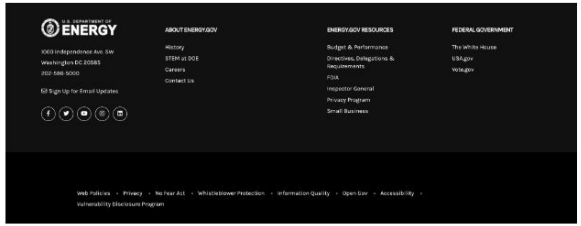
This navigation drop down should be redesigned, for a few reasons. In our research, we found most users don't immediately recognize STEM as an education hub so we would want to find a more universally understood title. I would also want to simplify by consolidating "Clean Energy" and "Energy Sources" into one, as the energy sources page does also link out to clean energy directly. I also would choose to relocate "Energy Efficiency" to another section, as it is also referenced under other primary headers.

This header functions well as is, I think this much shorter list is simpler and easier to navigate. I didn't see any issues with how they were separated out or titled, so I would leave this as is.

I mostly would keep this header the same, though I thought the title should include "Protection" regarding the environmental cleanup item in the drop down as security could envelop the rest.



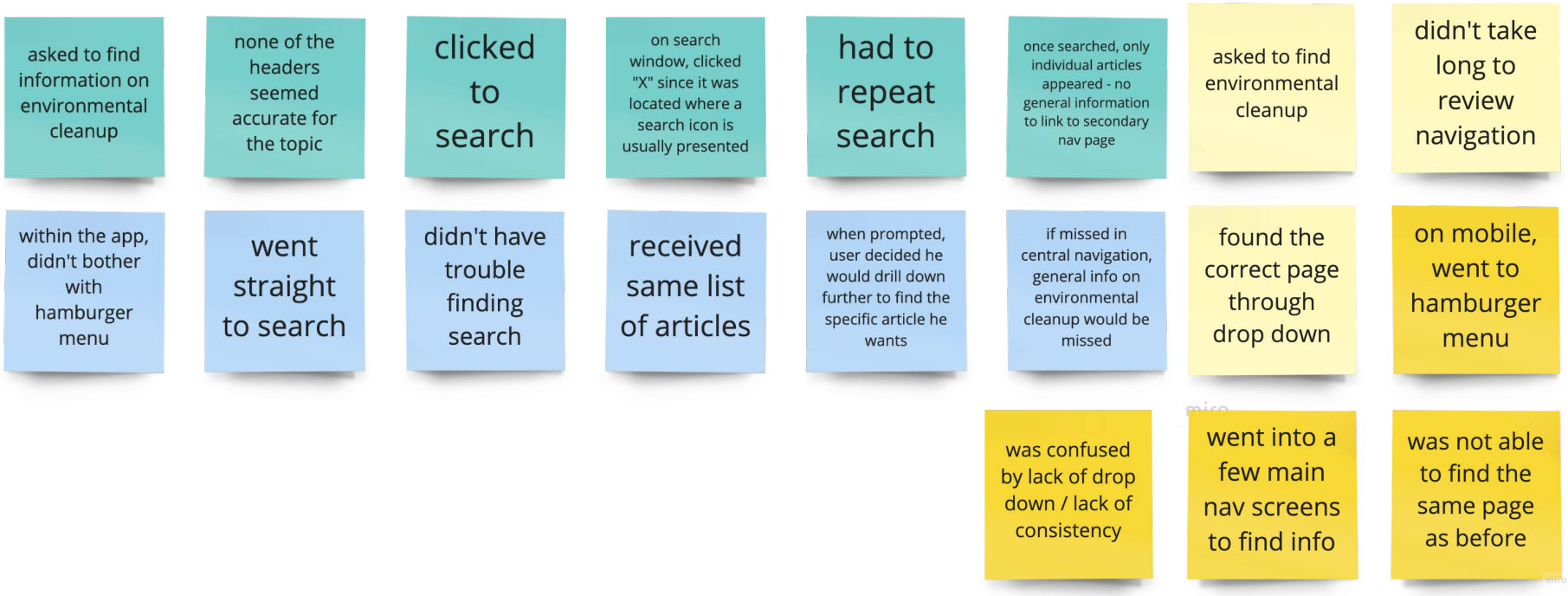

I found there to be quite a bit of repetition under this header, so my main goal is consolidation to make it easier to scan and choose an option. I think "Weatherization" easily covers "Windows, Doors, & Skylights", "Sealing Your Home", and "Insulation". I also found that "Start Saving" could easily encompass "Electricity & Fuel", "Heating and Cooling" could stand on its own, and "Design & Remodeling" could cover the rest. With too many options as it currently stands, a user could have to go under multiple different options to get all the tips they need which is a frustrating exercise that could cause them to give up. I also renamed this section "Energy Efficiency Tips" since the separate icon is currently confusing. Also, since this does not include direct aid for those who need to save, I thought it would be best to be more straightforward with the content of the section.




For the footer, I wouldn't change too much. I think including the address, socials, the about section, and various governmental resources and websites are appropriate. I might be more straightforward in this section about the link between "Energy.gov" and "the US Dept of Energy" but I would also choose to include this directly on the home page.

# navigation usability testing

[link]

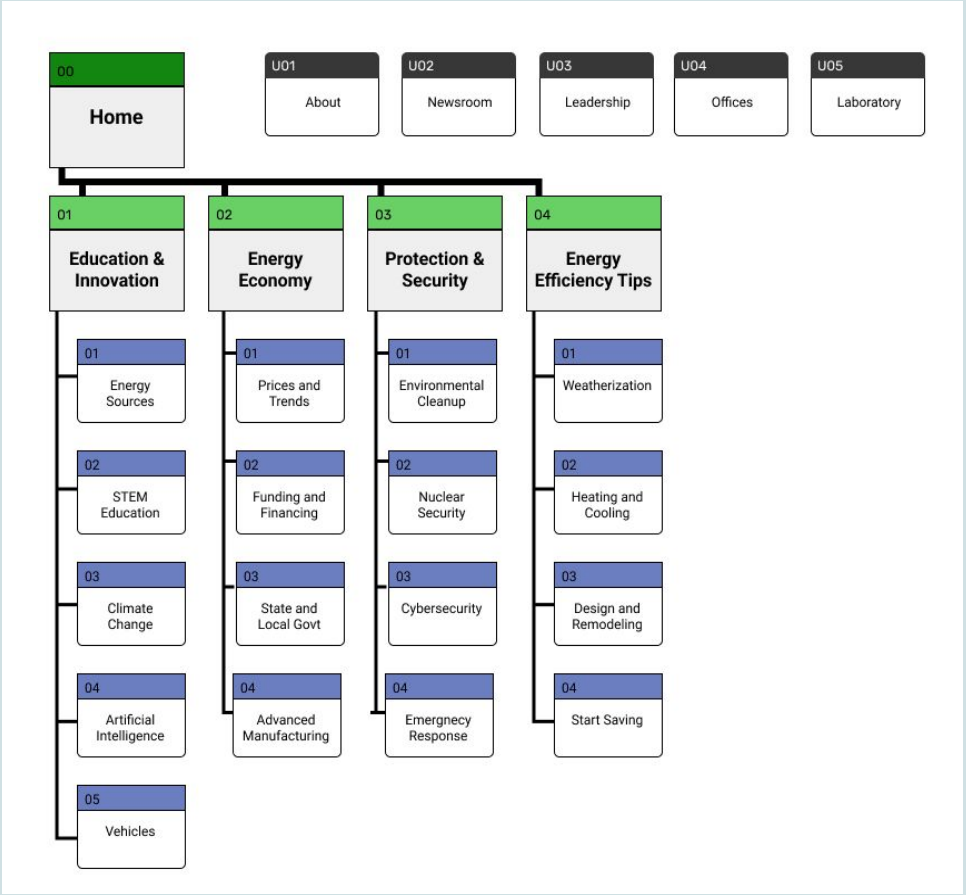


# card sorting navigation

Link

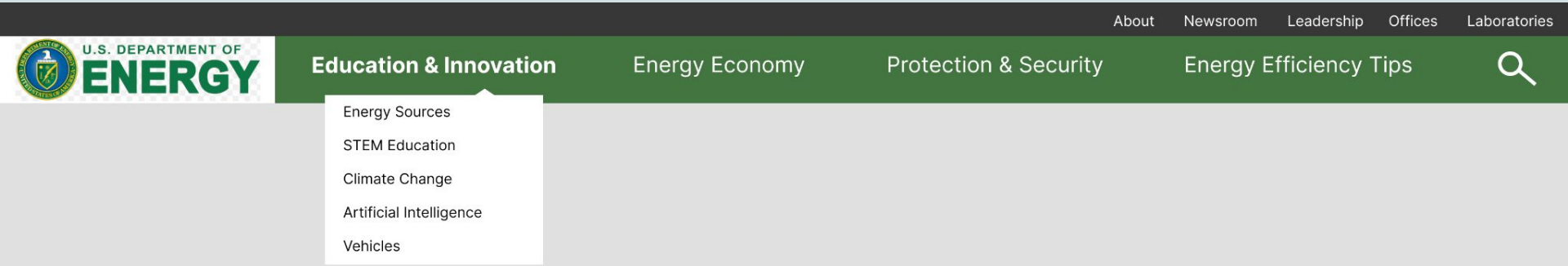
# sitemap of navigation

[link]



# new UI navigation prototype

link



# ENERGY.GOV
## user interface analysis

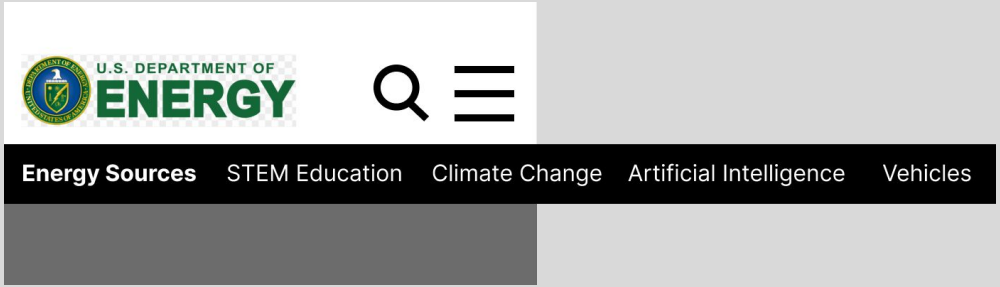
Elise Mary Lanigan

module 10

# header navigation components - iPhone & iPad

link

iPhone version 1 with horizontal scroll menu

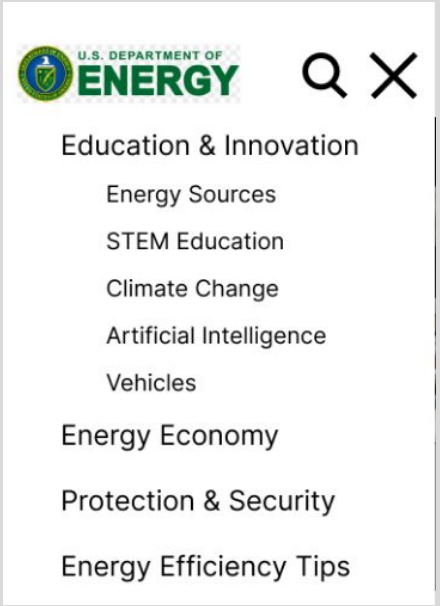



iPad final version

# header navigation - iPhone version 2

[link]

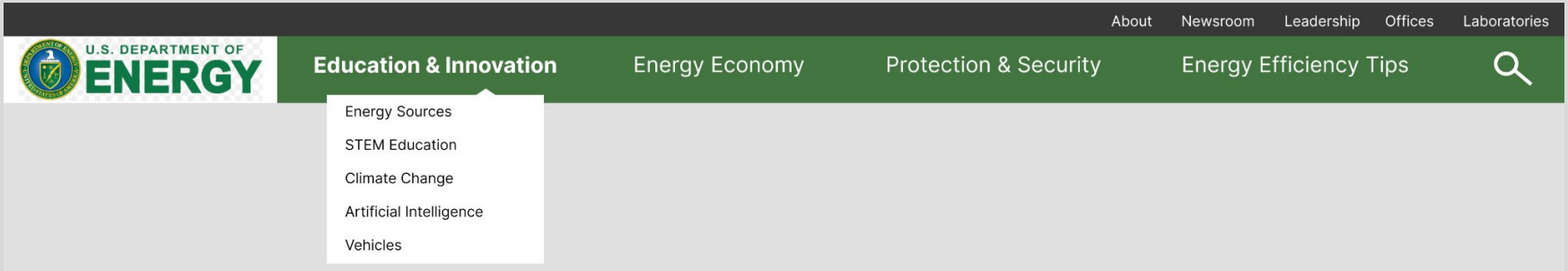
iPhone version 2 with dropdown menu and hamburger



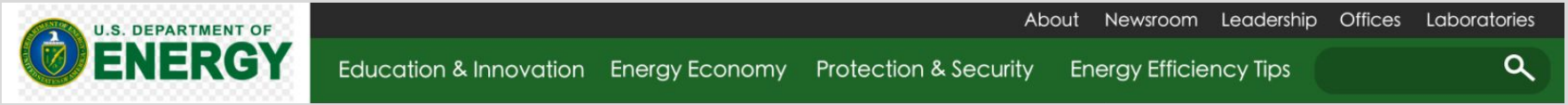
# header navigation - desktop versions

link

Desktop version 1



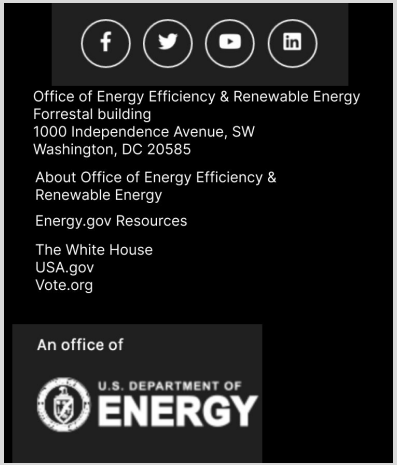

Desktop version 2 with search bar, larger secondary navigation and logo



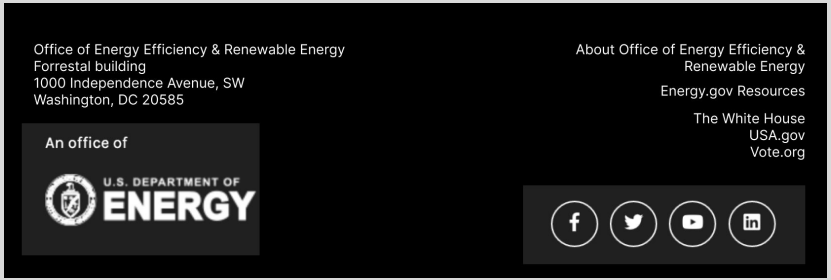
# footer navigation - iPhone, iPad, desktop

link

## iPhone




## iPad

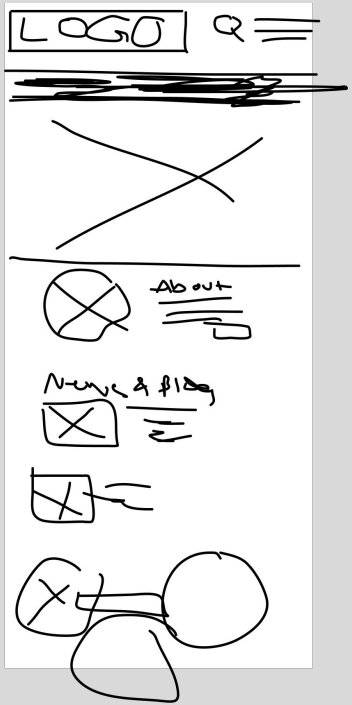



## Desktop

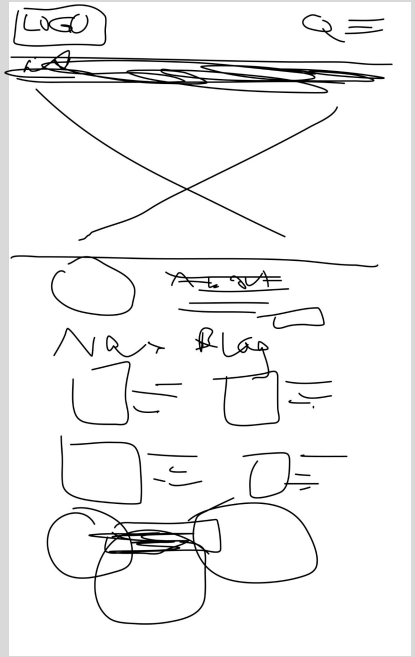
# homepage and navigation sketches

link

iPhone



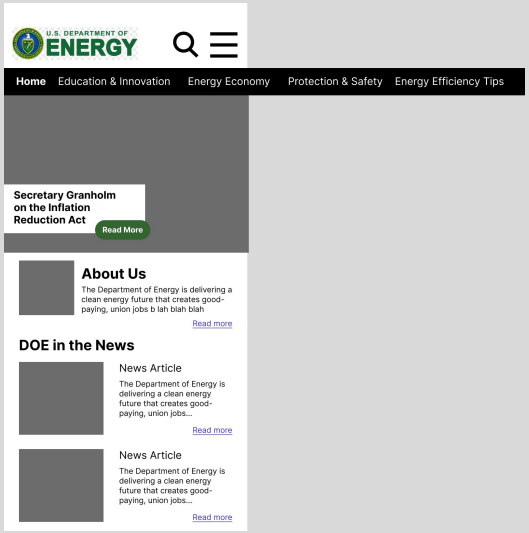

iPad



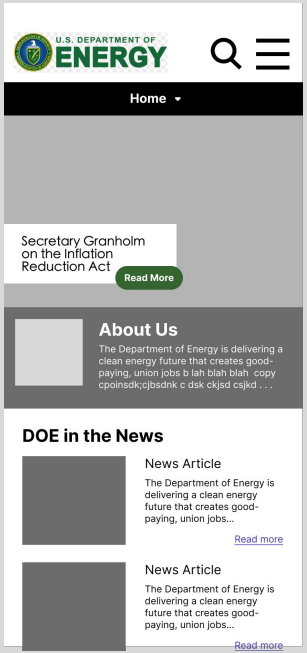
# homepage and navigation wireframes

link

## iPhone v.1




## iPhone v.2

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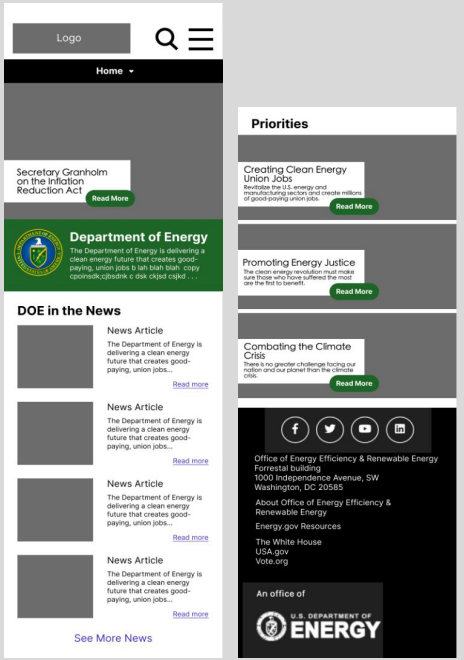
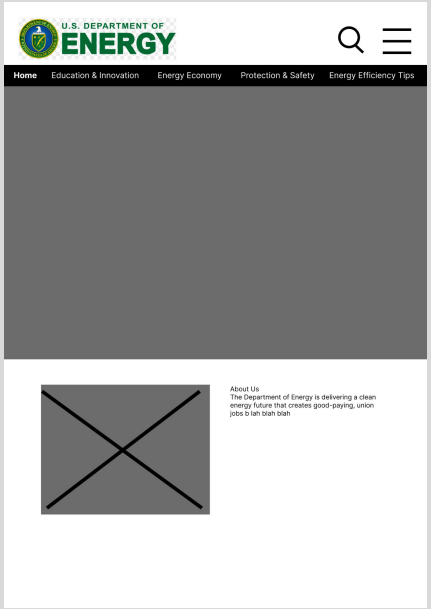


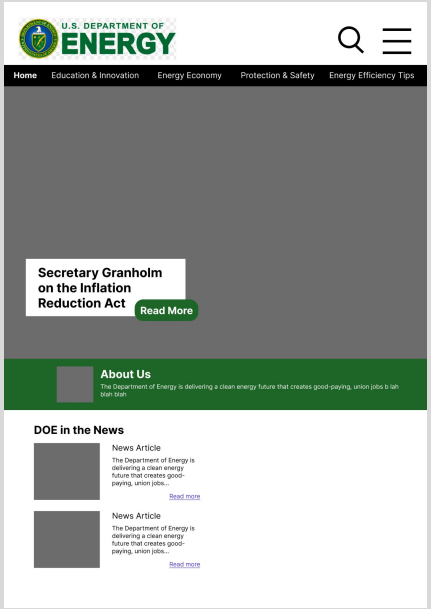
# homepage and navigation wireframes

[link]

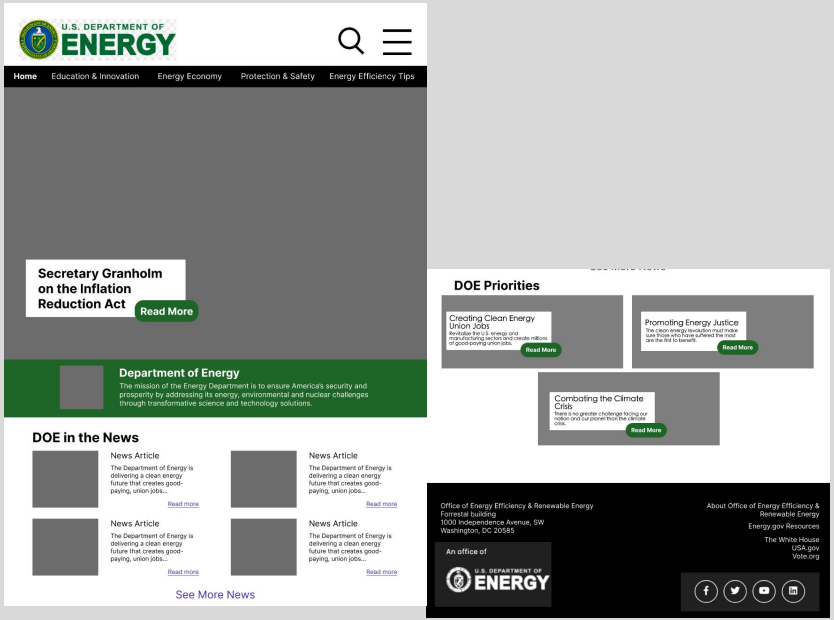
iPad v.1




iPad v.2



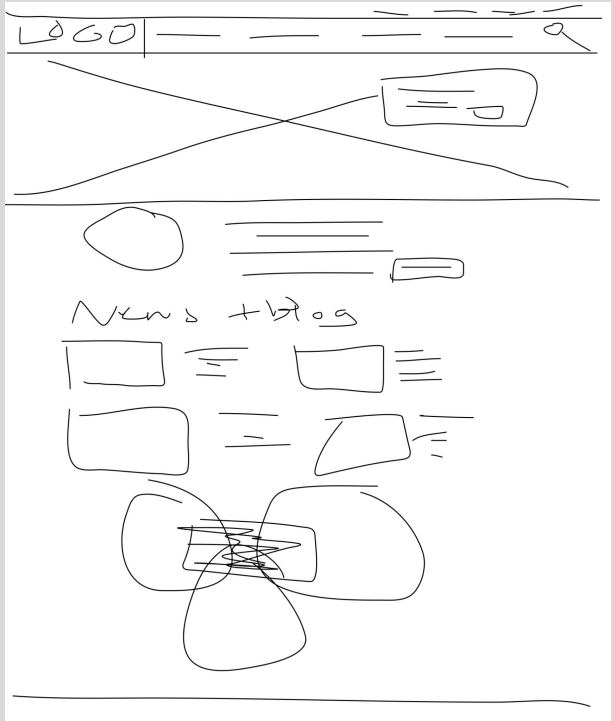

iPad v.3



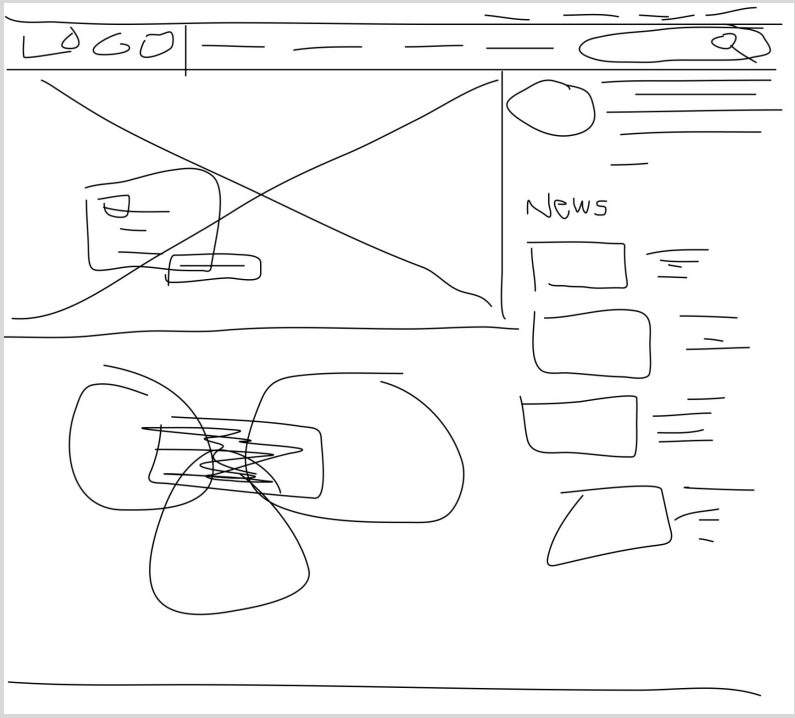
# homepage and navigation sketches

link

Desktop v.1



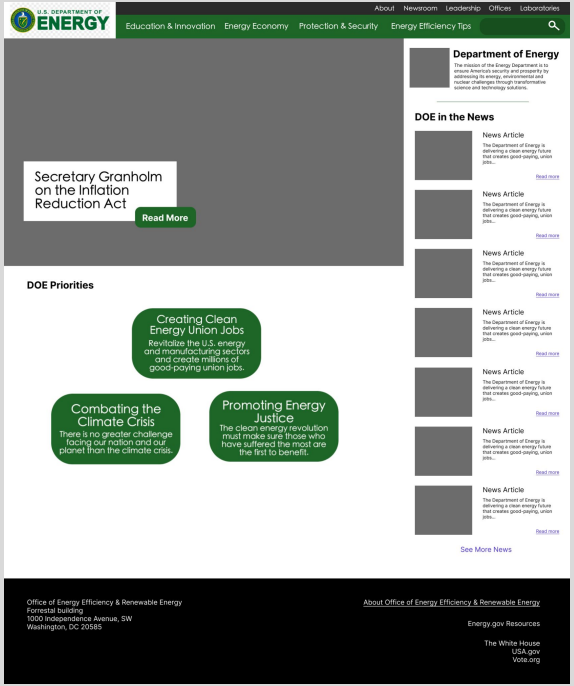

Desktop v.2



# homepage and navigation wireframes

[link]

## Desktop v.1

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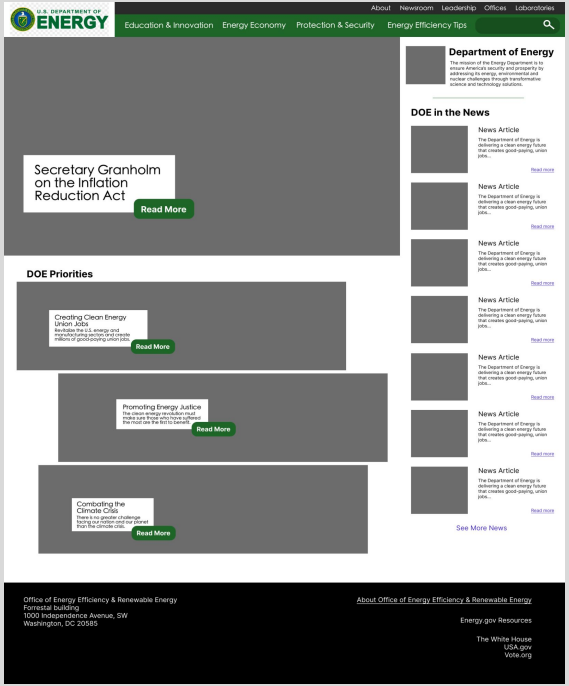
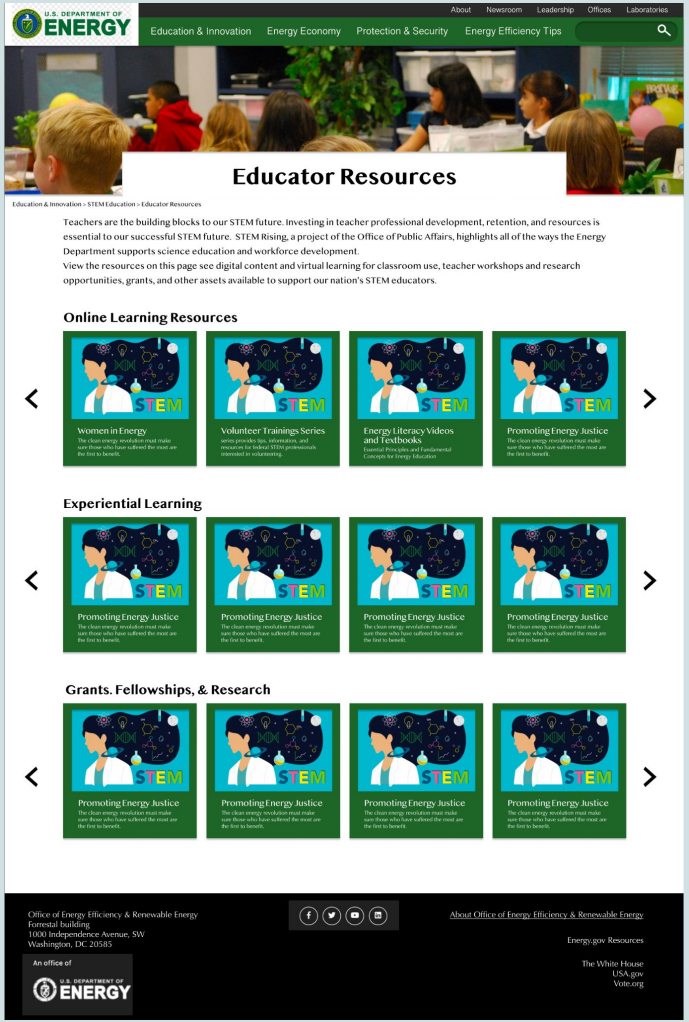


# page 2 and navigation wireframes

[link]

# page 3 and navigation wireframes

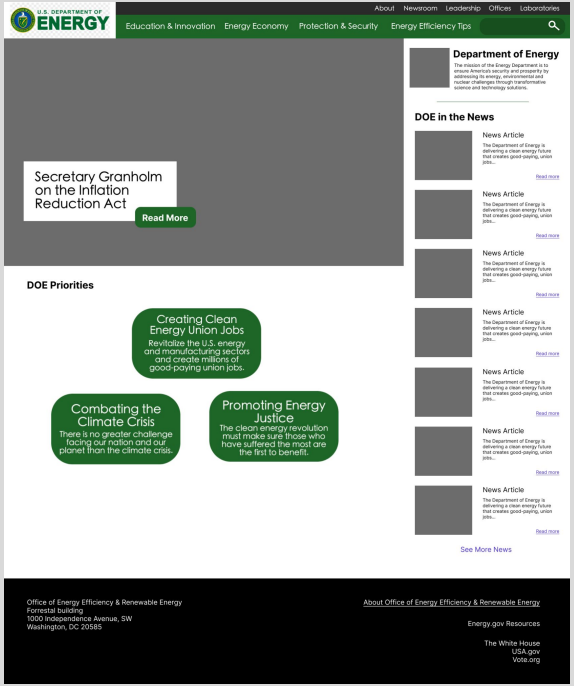
[link]



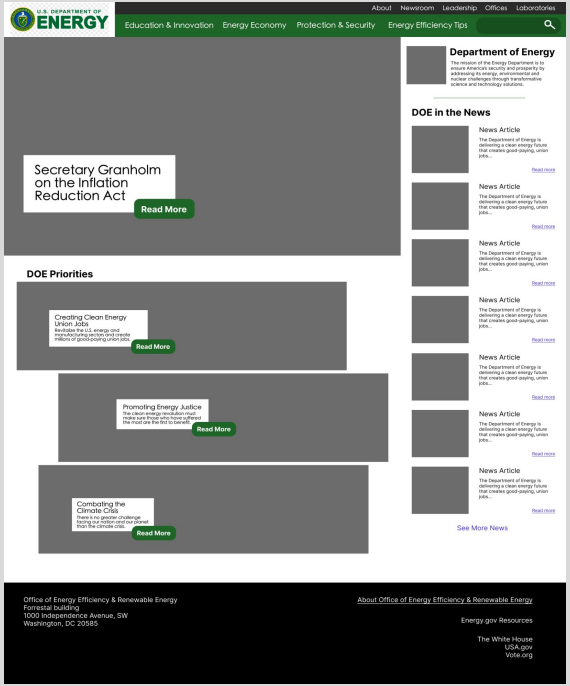
# clickable desktop wireframes

[link]

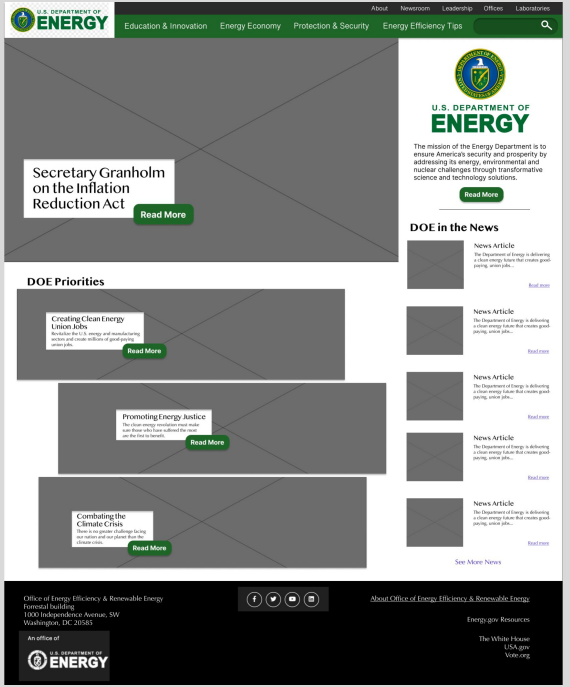
## Desktop v.1




## Desktop v.2




## Desktop v.3 - clickable



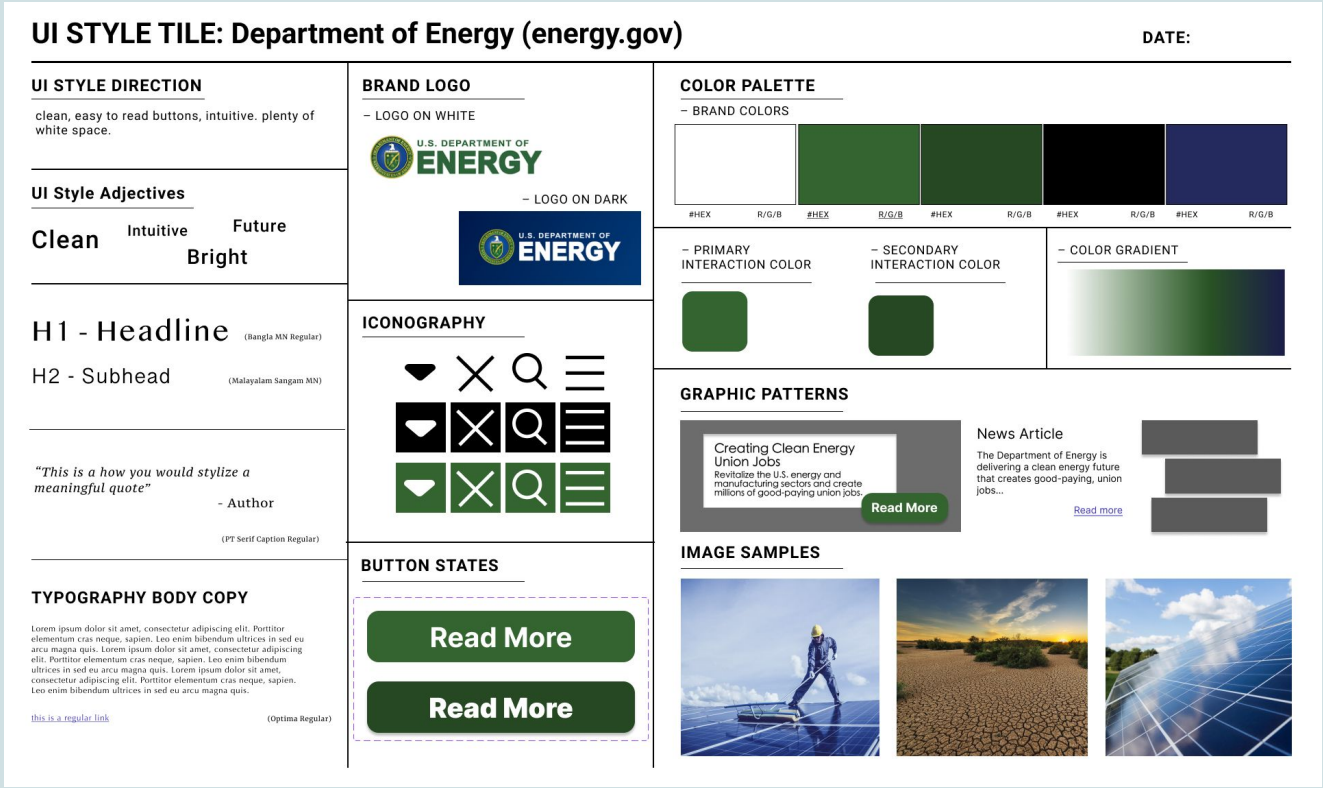
# 5 second user test

From my user testing, I have determined:

- removing the additional drop down menu will make the screen less cluttered as it is no longer necessary
- adding drop down icons within the hamburger menu would improve usability so users can clearly see which section they have open

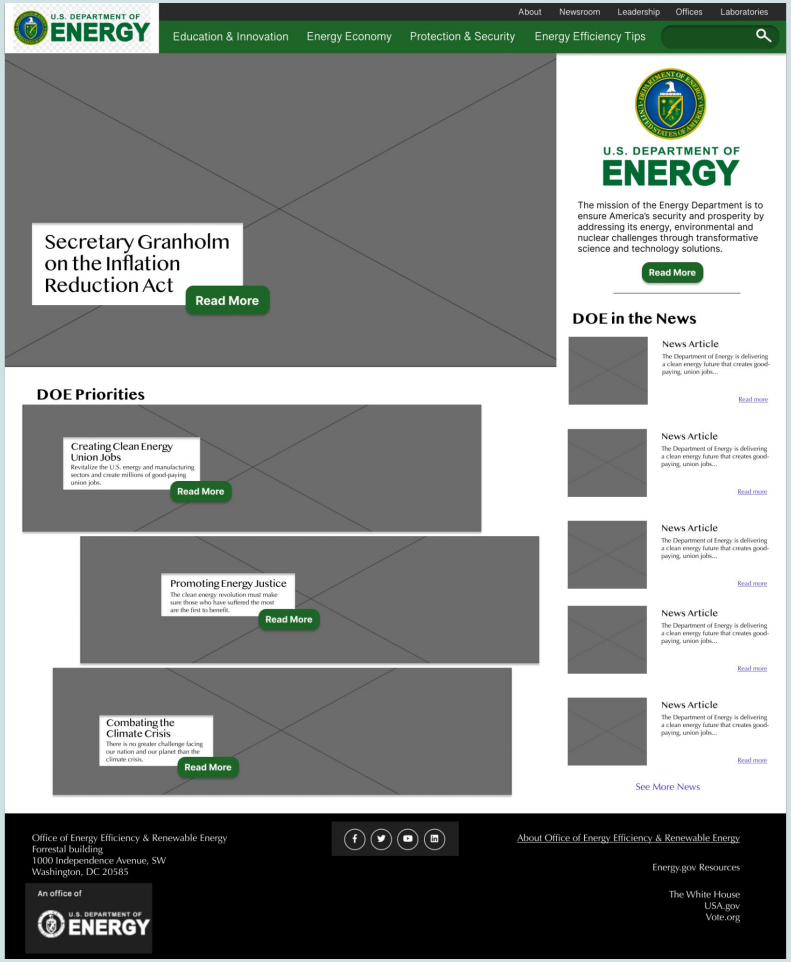
# UI Style Tile

[Link]



# homepage mid-fi desktop wireframes

[link]



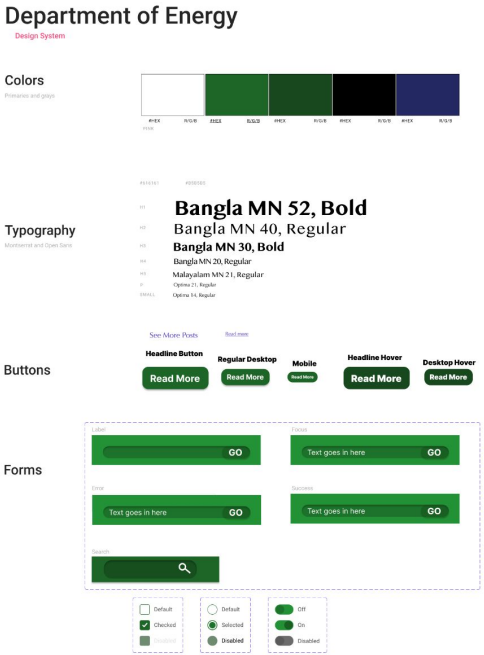
# ENERGY.GOV
## user interface analysis

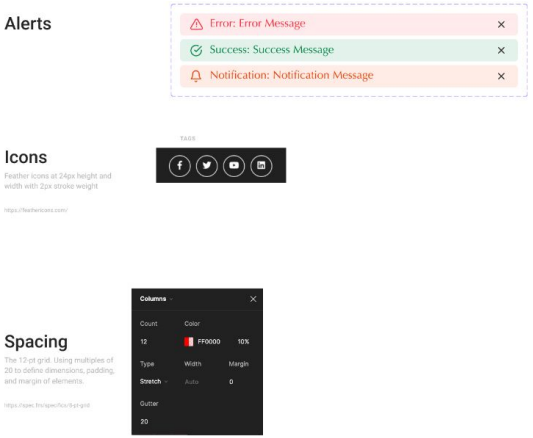
Elise Mary Lanigan

Module 11-12

# style guide

https://www.figma.com/file/HDrvbhlfbuwObLlY7MsMhC/DOE-Elise?node-id=226%3A157

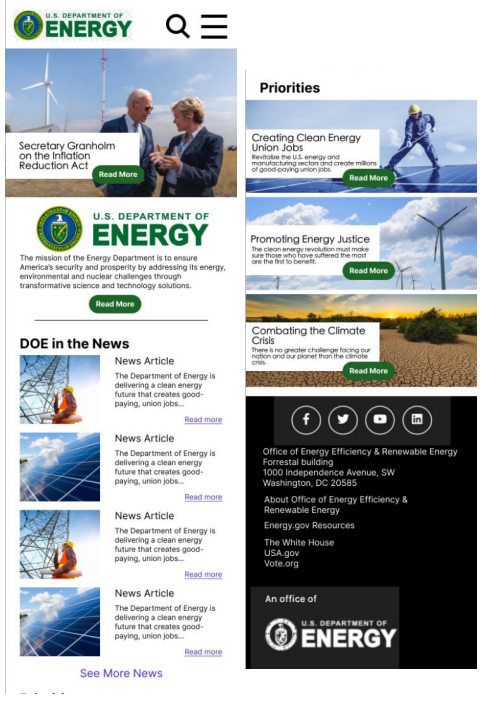


# mobile high-fidelity mockups

[link]

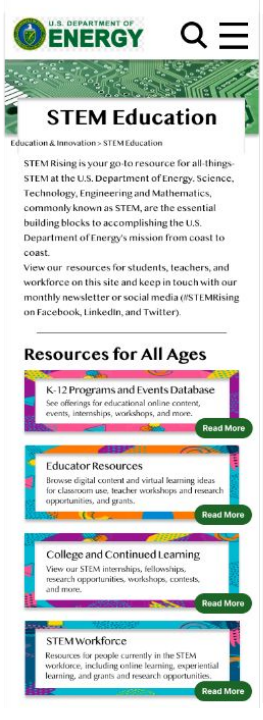
## Page 1

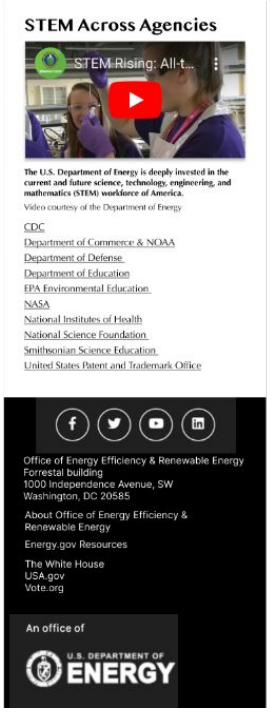




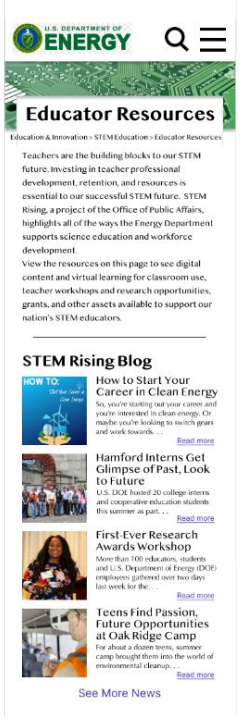


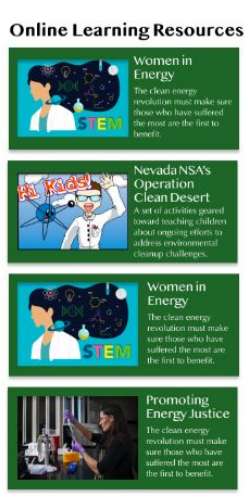
## Page 2






## Page 3

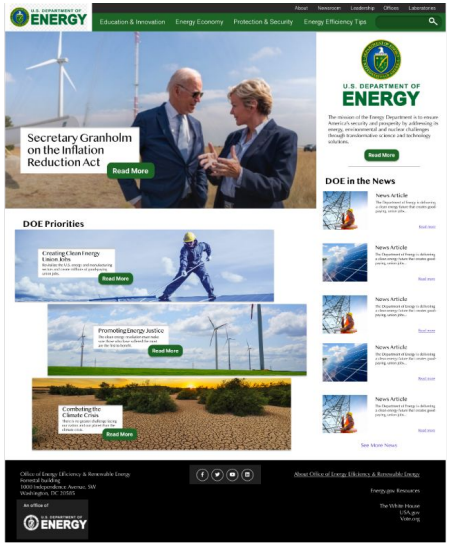


# desktop high-fidelity mockups

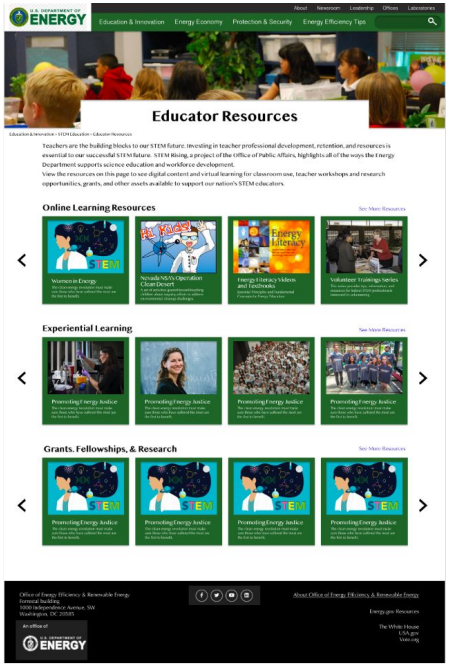
[link]

Page 1




Page 2

Page 3



# clickable mobile prototype

[link]

# clickable desktop prototype

[link]

# high-fidelity mobile testing results

From my testing, I've found that:

- could still improve the label of "STEM Education"
- should add additional routes to return to the main homepage
- once on the STEM education page, it was much easier for users to find the educational resources than it was before

| Tasks | Tester 1 | Tester 2 | Tester 3 |
|---|---|---|---|
| Open Navigation | ✓ | ✓ | ✓ |
| Find Education Section | ✓ | X | ✓ |
| Find Teacher Resources | ✓ | X | ✓ |

# final thoughts

- From our testing, we have determined the redesigned sitemap is much easier for our testers to navigate.
- Moving forward, I would still aim to test alternative titles for the sitemap to even further improve coherence. I would also want to expand the scope of the redesign, as the original issue of the large inventory of information to organize still remains.