

Objectives/purpose of the redesign for Florida Energy Systems Consortium website(<http://floridaenergy.ufl.edu>):

1. Update the website to up to date standard website
2. Improve the loading time and accessibility of website
3. Make the website to be more mobile friendly and responsive
4. Make the website be easier to use and navigate

State of the current site:

Accessibility audit

According to [Google Accessibility Developer Tool](#) on Google Chrome extension, it score 59 on accessibility, some of the elements have some errors. Below are the missing elements.

1. Images elements do not have “alt” attributes
2. Links do not have discernible name
3. Form elements do not have associated labels
4. Background and foreground colors do not have a sufficient contrast ratio

Mobile friendliness

According to [Google Mobile Friendly Test](#), The website is not mobile friendly. Below are the improvement needed for the website.

1. Viewport not set
2. Clickable elements too close together
3. Text too small to read
4. Content wider than screen

[Full report from Google Mobile Friendly Test](#)

Performance

[Google Research](#) shows 53% of mobile users will leave the website, if the website takes more than 3 seconds to load the page. According to [WebPageTest](#), FESC page takes about 4 seconds to load the full website, which will make potential audiences to close the website. Below are the grading of each performance elements.

First Byte: D

Keep-alive Enabled: A

Compress Transfer A

Compress Images: C

Cache static content: F

Effective use of CDN: X

Load Time: 4.295s

First Byte: 0.762s

Start Render: 1.5s

Visually Complete 5.3s

Speed Index: 2565

First Interactive (beta): >4.210s

[Full report from WebPageTest](#)

### Functionality

1. Download brochure button does not work on homepage
2. Email sign up form does not have submit button on homepage
3. Social media Linkedin is not linked to company's Linkedin profile on homepage
4. Long list of tabs on the side navigation bar, which could be more organized and some of the tab does not work
5. Site Map page is blank

### Ease of use

The website has two navigation bars, one on the top of the page and one on the side of the page, which is confusing and inconsistencies for users to research for information. On the side navigation bar, some links repeated and some links bring you to external website or document file. Some pages have long list of tabs, which is hard to navigate. Also, some links do not work under the side navigation bar, it is hard to tell which link is clickable.

### Device support necessary

It is important to have the website to support different sizes such as desktop, laptop, mobile and tablet. The website has many academics articles so professional could be seeking for opportunity to corporate and students are using the website for education purpose. They are more likely to access the website using desktop or laptop. The population of using mobile devices is growing and there are various sizes of mobile and tablet. Potential customers and researchers could be access the website on mobile or tablet.

### Recommendations for improvement

1. Resign the website to be both desktop and mobile friendly and responsive to devices' sizes
2. Resign the website to be more ease to use, such as having constant navigation bar
3. Revise HTML, CSS and JavaScript errors, such as adding "alt" attributes for every image element
4. Improve color scheme