# UtilityGenius™ Commercial Storefront (Con Edison) & Microsites Case Study

## Project overview

[UtilityGenius™ Commercial Storefront](https://shopconed.utilitygenius.com) is an e‑commerce platform created for Con Edison business customers and their contractors. The site helps customers identify and purchase energy‑efficient lighting products and other electrical equipment at discounted prices. A dedicated section of the home page encourages visitors to “get connected with incentives on products instantly” to improve both financial and energy savings[[1]](https://shopconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront). Through Con Edison’s Instant Lighting Incentive Program, the storefront integrates rebates directly into the shopping experience so that customers see the savings reflected immediately at checkout[[1]](https://shopconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront).

## Key features

* **Branded landing page.** The home page includes a prominent hero banner welcoming users to the official UtilityGenius Commercial Storefront and advertising “amazing deals” for Con Edison customers[[2]](https://shopconed.utilitygenius.com/#:~:text=Welcome%20to%20the%20Official%20UtilityGenius%E2%84%A2,Commercial%20Storefront). A navigation bar at the top offers quick access to **Home**, **Lighting**, **About**, **FAQ** and **Contact** sections.
* **Search & navigation.** A search bar allows users to quickly locate products, while the navigation menu organizes products into categories such as **Lighting**[[3]](https://shopconed.utilitygenius.com/#:~:text=Home). Customers can also browse products by supplier, with logos displayed in a dedicated section[[4]](https://shopconed.utilitygenius.com/#:~:text=Shop%20By%20Supplier).
* **Featured products.** The landing page highlights multiple featured products with pricing, original retail price and percentage savings. For example, a PAR38 LED flood lamp is priced at **$13.69** compared to a retail price of **$23.44**, yielding a **42 %** savings[[5]](https://shopconed.utilitygenius.com/#:~:text=%2413). Each product card includes an image, supplier name, discounted price and percentage saved[[6]](https://shopconed.utilitygenius.com/#:~:text=%2413).
* **Instant incentives.** The “Why Shop With UtilityGenius™ Commercial Storefront” section explains that the site connects customers with incentives and rebates to offset the higher upfront cost of energy‑efficient products[[1]](https://shopconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront). Incentives are applied automatically in the shopping cart so users see the lowest possible price.
* **Supplier and policy information.** The footer provides links to policies—Shipping, Refund and Privacy—along with social‑media icons and payment methods[[7]](https://shopconed.utilitygenius.com/#:~:text=). Customers can browse by supplier to find products from specific manufacturers[[8]](https://shopconed.utilitygenius.com/#:~:text=Shop%20By%20Supplier).

## Technology stack

UtilityGenius is built as a **multi‑storefront platform** using a combination of modern frameworks and cloud services. A **Ruby on Rails** backend powers the core business logic and provides a robust API for managing products, incentives and orders. Individual storefronts are rendered with **Next.js**, enabling server‑side rendering and a fast, responsive user interface. The platform also uses **NestJS** (a TypeScript framework built on top of Node.js) for modular microservices that handle features such as authentication, search and incentive calculations. The entire system is deployed on **AWS**, leveraging managed services for hosting, storage and scalability. This architecture allows Encentiv Energy to spin up customized microsites for different utilities while reusing a shared codebase.

## UtilityGenius microsites

Encentiv Energy’s architecture supports multiple branded microsites, each tailored to a specific utility program and supplier. These microsites apply instant rebates at checkout and share the same technology stack. The table below summarizes the microsites identified during research (URL and associated program/supplier). See the citations for the “Why shop” sections that describe the incentive programs.

| Microsite URL | Program & supplier (short) | Evidence |
| --- | --- | --- |
| shopconed.utilitygenius.com | **Con Edison Instant Lighting Incentive Program** – products from distributors like Graybar. | The site notes that incentives are applied through the Con Edison Instant Lighting Incentive Program[[1]](https://shopconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront). |
| swiftonr.utilitygenius.com | **Orange & Rockland Instant Lighting Incentive Program** – Swift Electrical Supply. | The microsite invites customers to get incentives on Swift Electrical Supply products and explains that rebates come from the Orange & Rockland program[[9]](https://swiftonr.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,by%20category%20below%20to%20see). |
| adamahconed.utilitygenius.com | **Con Edison Instant Lighting Incentive Program** – sponsored by Adamah. | The “Why shop” section indicates that instant rebates come from Con Edison’s program[[10]](https://adamahconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront). |
| adamahgpc.utilitygenius.com | **Georgia Power Instant Rebates** – MaxLite products; sponsored by the Adamah Climate Coalition. | The site states that incentives are through the Georgia Power Instant Rebates program[[11]](https://adamahgpc.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,savings%20right%20in%20your%20cart) and describes the Adamah organization[[12]](https://adamahgpc.utilitygenius.com/#:~:text=Adamah%20cultivates%20vibrant%20Jewish%20life,leadership%20development%2C%20and%20climate%20action). |
| giplgpc.utilitygenius.com | **Georgia Power Instant Rebates** – Georgia Interfaith Power & Light (GIPL). | The microsite explains that rebates are provided through the Georgia Power Instant Rebates program[[13]](https://giplgpc.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,savings%20right%20in%20your%20cart) and introduces GIPL’s mission[[14]](https://giplgpc.utilitygenius.com/#:~:text=Georgia%20Interfaith%20Power%20and%20Light,and%20implement%20retrofits%20that%20will). |
| regencygpc.utilitygenius.com | **Georgia Power Commercial Energy Efficiency Program** – Regency Supply. | It notes that instant rebates come from Georgia Power’s Commercial Energy Efficiency Program[[15]](https://regencygpc.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,savings%20right%20in%20your%20cart) and that Regency Supply is the featured supplier[[16]](https://regencygpc.utilitygenius.com/#:~:text=Meet%20the%20Supplier). |
| synergypeco.utilitygenius.com | **PECO Instant Discounts Pathway** – Graybar products; sponsored by Synergy Electrical Sales. | The site highlights that rebates come through the PECO Instant Discounts Pathway[[17]](https://synergypeco.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,see%20a%20return%20on%20investment) and provides background on Graybar and Synergy Electrical Sales[[18]](https://synergypeco.utilitygenius.com/#:~:text=Graybar%20is%20a%20leading%20North,operations%2C%20and%20original%20equipment%20manufacturing). |
| mjbge.utilitygenius.com | **BGE Instant Discounts Program** – Mason James Lighting & Supply. | The “Why shop” section indicates that rebates are from the BGE Instant Discounts Program and that Mason James is the supplier[[19]](https://mjbge.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,category%20below%20to%20see%20instant). |
| mjpepco.utilitygenius.com | **Pepco Business Instant Discounts Program** – Mason James Lighting & Supply. | Instant rebates are offered through the Pepco Business Instant Discounts Program[[20]](https://mjpepco.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,by%20category%20below%20to%20see). |
| diocesefwsb-inm.utilitygenius.com | **Indiana Michigan Power Commercial & Industrial Program** – LED lighting products. | The microsite applies rebates through Indiana Michigan Power’s Commercial & Industrial Program[[21]](https://diocesefwsb-inm.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront). |
| diocesefwsb-inm-hvac.utilitygenius.com | **Indiana Michigan Power Commercial & Industrial Program (HVAC)** – Daikin mini‑split heat pumps. | This HVAC‑focused microsite offers Daikin systems with rebates from Indiana Michigan Power’s program[[22]](https://diocesefwsb-inm-hvac.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront). |

## My role & contributions

As a software engineer at Encentiv Energy, I helped design and build the UtilityGenius Commercial Storefront and its microsite architecture. My responsibilities included:

* **Front‑end development.** I developed responsive UI components using TailwindCSS in Next.js for the home page, navigation bar, product cards and supplier listings. The design needed to align with each utility’s branding while maintaining accessibility and performance.
* **Search & filtering logic.** I implemented a search component that allows users to quickly locate products by name or model. The component uses Elasticsearch and interacts with NestJS microservices for efficient filtering.
* **Product data integration.** I worked on API endpoints and front‑end hooks for retrieving product details, pricing, rebate amounts and availability from our Rails backend and third‑party services. The product cards display the discounted price and calculated savings for each item[[6]](https://shopconed.utilitygenius.com/#:~:text=%2413).
* **Incentive calculation.** The Instant Lighting Incentive Program and other utility programs required integrating rebate calculation logic into the checkout process. I helped implement logic to determine eligibility and apply incentives so that customers see the adjusted price automatically[[1]](https://shopconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront).
* **Microsite customization.** Each microsite required unique branding, product catalog configuration and incentive settings. I built tooling to provision new microsites quickly, ensuring that utilities and distributors could launch branded storefronts without duplicating code.

## Final Notes

Because the UtilityGenius platform is proprietary, the source code and full UI cannot be published publicly. However, you can visit the public microsites listed above to see the features described. This case study summarizes the project, highlights my contributions and documents the microsite ecosystem without revealing confidential code.

## Citations

[[1]](https://shopconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront) [[2]](https://shopconed.utilitygenius.com/#:~:text=Welcome%20to%20the%20Official%20UtilityGenius%E2%84%A2,Commercial%20Storefront) [[3]](https://shopconed.utilitygenius.com/#:~:text=Home) [[4]](https://shopconed.utilitygenius.com/#:~:text=Shop%20By%20Supplier) [[5]](https://shopconed.utilitygenius.com/#:~:text=%2413) [[6]](https://shopconed.utilitygenius.com/#:~:text=%2413) [[7]](https://shopconed.utilitygenius.com/#:~:text=) [[8]](https://shopconed.utilitygenius.com/#:~:text=Shop%20By%20Supplier) UtilityGenius™ Commercial Storefront

<https://shopconed.utilitygenius.com/>

[[9]](https://swiftonr.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,by%20category%20below%20to%20see) UtilityGenius™ Commercial Storefront

<https://swiftonr.utilitygenius.com/>

[[10]](https://adamahconed.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront) UtilityGenius™ Commercial Storefront

<https://adamahconed.utilitygenius.com/>

[[11]](https://adamahgpc.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,savings%20right%20in%20your%20cart) [[12]](https://adamahgpc.utilitygenius.com/#:~:text=Adamah%20cultivates%20vibrant%20Jewish%20life,leadership%20development%2C%20and%20climate%20action) UtilityGenius™ Commercial Storefront

<https://adamahgpc.utilitygenius.com/>

[[13]](https://giplgpc.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,savings%20right%20in%20your%20cart) [[14]](https://giplgpc.utilitygenius.com/#:~:text=Georgia%20Interfaith%20Power%20and%20Light,and%20implement%20retrofits%20that%20will) UtilityGenius™ Commercial Storefront

<https://giplgpc.utilitygenius.com/>

[[15]](https://regencygpc.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,savings%20right%20in%20your%20cart) [[16]](https://regencygpc.utilitygenius.com/#:~:text=Meet%20the%20Supplier) UtilityGenius™ Commercial Storefront

<https://regencygpc.utilitygenius.com/>

[[17]](https://synergypeco.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,see%20a%20return%20on%20investment) [[18]](https://synergypeco.utilitygenius.com/#:~:text=Graybar%20is%20a%20leading%20North,operations%2C%20and%20original%20equipment%20manufacturing) UtilityGenius™ Commercial Storefront

<https://synergypeco.utilitygenius.com/>

[[19]](https://mjbge.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,category%20below%20to%20see%20instant) UtilityGenius™ Commercial Storefront

<https://mjbge.utilitygenius.com/>

[[20]](https://mjpepco.utilitygenius.com/#:~:text=Get%20connected%20with%20incentives%20on,by%20category%20below%20to%20see) UtilityGenius™ Commercial Storefront

<https://mjpepco.utilitygenius.com/>

[[21]](https://diocesefwsb-inm.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront) UtilityGenius™ Commercial Storefront

<https://diocesefwsb-inm.utilitygenius.com/>

[[22]](https://diocesefwsb-inm-hvac.utilitygenius.com/#:~:text=Why%20Shop%20With%20UtilityGenius%E2%84%A2%20Commercial,Storefront) UtilityGenius™ Commercial Storefront

<https://diocesefwsb-inm-hvac.utilitygenius.com/>