NRGR Cognitive Walkthrough (Team 3)

PG&E Energy Reducer

February 7th, 2023

Users and Environment

Users

    The users of this application are residential homeowners and business owners who want to gain insight into their energy consumption through Pacific Gas & Electric as well as optimize their energy usage.

Environment

    The PG&E Energy Reducer will be designed for 'in browser' desktop use, but will be scalable for usability on mobile browsers.

PG&E Energy Reducer

Welcome back, Nulifer

Nulifer

- Summary

Energy Consumption Total ›

912 kWh

-15.6%   -142 kWh this month

Energy Tips ›

You use the most energy at 6pm

Remember to turn lights off at night
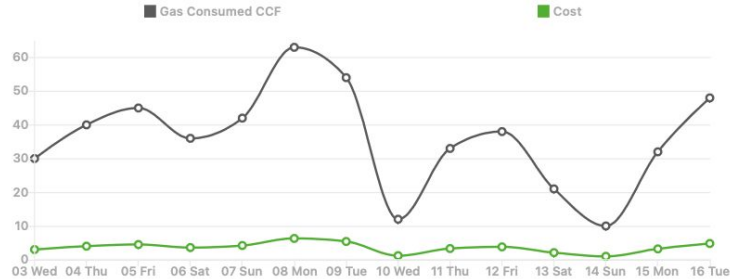
Outages ›

1

-50%   -1

Energy Usage

Electric Consumption ⌄   Last 7 Days ⌄

■ Gas Consumed CCF   ■ Cost

60
50
40
30
20
10
0
03 Wed 04 Thu 05 Fri 06 Sat 07 Sun 08 Mon 09 Tue 10 Wed 11 Thu 12 Fri 13 Sat 14 Sun 15 Mon 16 Tue

Environmental Impact

- 1.6kg CO2
- 16 miles driven
- placeholder
- placeholder

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Nominal Use Scenario

Nilufer would like to observe their electric consumption from last week. Nilufer opens the PG&E Energy Reducer App, signs in to her account, selects 'Week' in the drop down menu above the 'Electric Consumption' graph, and observes her electric consumption habits from the last week. While observing her electric bill, Nilufer notices that there are many areas where she is wasting electricity, and is more conscious about her consumption over the following weeks.

PG&E Energy Reducer

Summary

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Welcome back, Nulifer

👤 Nulifer ⌄

Energy Consumption Total ›

912 kWh

↘ **-15.6%**   **-142** kWh this month

💡 Energy Tips ›

You use the most energy at 6pm
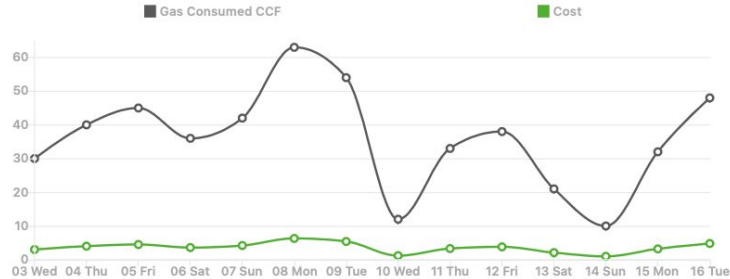
Remember to turn lights off at night

🔌 Outages ›

1

↘ **-50%**   **-1**

Energy Usage

Electric Consumption ⌄   Last 7 Days ⌄

■ Gas Consumed CCF   ■ Cost

03 Wed 04 Thu 05 Fri 06 Sat 07 Sun 08 Mon 09 Tue 10 Wed 11 Thu 12 Fri 13 Sat 14 Sun 15 Mon 16 Tue

Environmental Impact

🌿 **1.6kg CO2**

🌿 **16 miles driven**

🌿 **placeholder**

🌿 **placeholder**

Error Use Scenario

David doesn't understand why his gas bill was so high from last month. David opens the PG&E Energy Reducer App, signs in to his account, selects 'Month', and checks the graph for abnormalities to understand why his gas bill was unusually expensive. While looking at the graph, he cannot figure out what the graph is supposed to be telling him. As a result, he doesn't understand why his gas bill is so high and so he angrily calls PG&E and tells them that he was overcharged.

PG&E Energy Reducer

Welcome back, David

David J

Summary

Energy Consumption Total ›

912 kWh

↗ +15.6% +204 kWh this month

Energy Tips ›

You use the most energy at 6pm

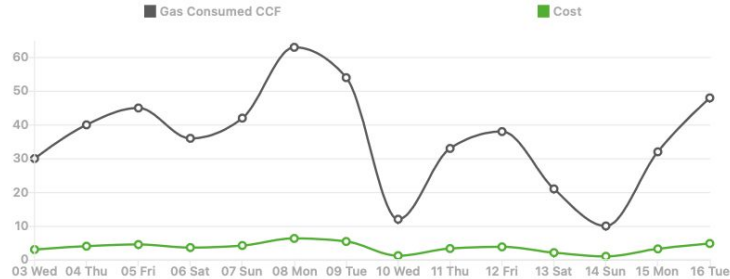Remember to turn lights off at night

Outages ›

1

↘ -50% -1

Energy Usage

Electric Consumption ⌄   Last 30 Days ⌄

■ Gas Consumed CCF   ■ Cost

03 Wed 04 Thu 05 Fri 06 Sat 07 Sun 08 Mon 09 Tue 10 Wed 11 Thu 12 Fri 13 Sat 14 Sun 15 Mon 16 Tue

Environmental Impact

🍃 1.6kg CO2

🍃 16 miles driven

🍃 placeholder

🍃 placeholder

Help

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Other Paper Prototypes

PG&E Energy Reducer

Welcome back, Nulifer

Nulifer

Summary

Help

Lorem ipsum dolor sit amet...

Help
Contact us
Log out

PG&E Energy Reducer

Welcome back, Matthew

Matthew B

Summary
Settings

Energy Consumption Total >

912 kWh

-15.6%   -142 kWh this month

Energy Tips >

You use the most energy at 6pm

Remember to turn lights off at night

Outages >

1

-50%   -1

Average Energy Usage

Gas Consumption   Last 14 Days

Gas Consumed CCF   Cost

60
50
40
30
20
10
0

03 Wed 04 Thu 05 Fri 06 Sat 07 Sun 08 Mon 09 Tue 10 Wed 11 Thu 12 Fri 13 Sat 14 Sun 15 Mon 16 Tue

Environmental Impact

1.6kg CO2
16 miles driven
placeholder
placeholder

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Usability Goals and Concerns

Goals:

- Help users visualize their energy consumption
- Provide tips to help users reduce their energy consumption
- Present all the data in a single view for simplicity

Concerns:

- How to handle days with unavailable data
- How to identify and deal with outages