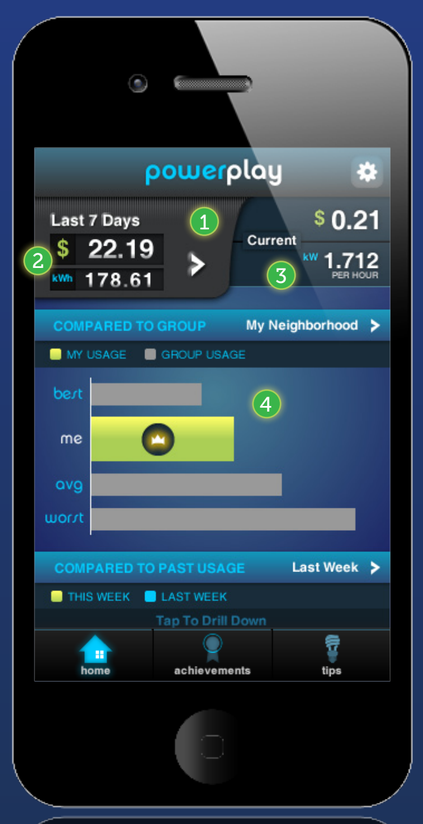
powerplay

Real-Time Energy Data & Insights • Social Competition • Powerful Visualizations • Virtual Rewards • Energy Savings Tips

key features



1. Energy Header

The Energy Header is the most prominent feature of the application. This was included in the design to allow basic access to energy data and also because users noted that a persistent header was a strong motivator for conservation.

2. Energy in '$' and 'kWh'

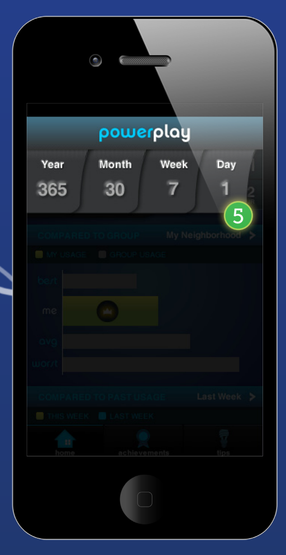
Energy feedback in included terms that users readily understand (money) and in a way that is easier to compare, and that increments more quickly (kilowatts per hour). The dual metric also alludes to the dual nature of most energy savers. Some are interested in big changes and saving money, while others more focused on in finer details and saving the environment.

3. Real-Time Usage

Research and experience prototyping has indicated that providing real-time consumption figures enables electricity users to understand and control with what is going in their homes or apartments.

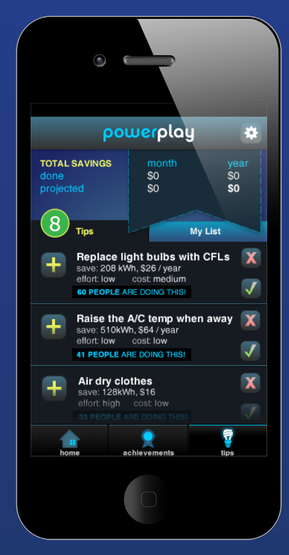
4. Social Competition Comparison

Powerplay taps into social-normative pressure by showing users how they are performing compared to others in their neighborhoods, ad hoc groups or against all Powerplay users.



5. Intuitive Time Windows

Powerplay includes four time windows, meant to provide insight into long term trends similar to what people see on their current power bills, and into more detailed, recent actions.



8. Energy Saving Tips

Tips allow users to see energy saving actions that are available to them along with the potential impact and cost. Users can easily can see how many others have committed to or completed each tip.

10. Adhoc Groups

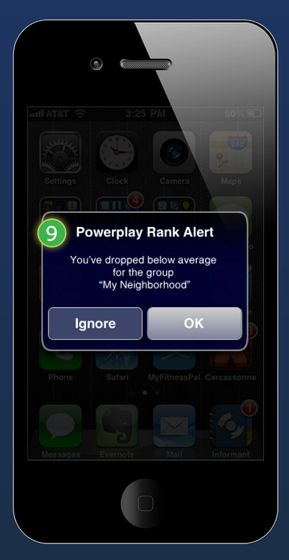
Powerplay includes a small social component that allows users to create their own groups of friends, neighbors, coworkers etc. to compete against. As with other groups, no individual user data is displayed.

6. Comparison Charts

The charts in Powerplay show current performance against the past, similar to a paper power bill. Users to see various time frames based on the Energy Header, and compare against various time frames.

7. Data Insights

The insights section displays system generated insights that will provide instant feedback about data trends and anomalies.



9. Alerts : Rankings Usage

Alerts are part of the social competition within Powerplay. Users get alerts when they reach the best spot, move above average or fall below. Users also get alerts for abnormal energy use.

11. Achievements

Users get rewards for things like creating or joining an ad hoc group, or for sustained improvement in energy conservation over the course of a month. All of the achievements can be shared online through various social networks.

powerplay in action

INTEREST IN CONSERVATION

●●○○○

INTEREST IN ENERGY COST

●○○○○

USER PERSONA

Meet Shelly Reeves
27 YEARS OLD, MOTHER OF TWO

- Busy stay at home mom who does not have much time for else.
- Doesn't think about finding ways to save due to low cost of energy.
- Will happily make changes, especially if it benefits the environment.

REVIEWING INDIVIDUAL USAGE

1. Shelly opens the app and sees the home screen including her current usage. She notes she is doing better than many of her neighbors in the last seven days. She wants to see how things have been going for the month, so she taps the time frame tab.
2. The time frame tab appears and Shelly selects month.
3. The month comparison appears, and Shelly can see she's doing worse than the average in her neighborhood. So she scrolls down to see a graph of the last 30 days.
4. She notes in the insights that a few evenings earlier in the month were high, so taps on the graph near these days.
5. After tapping the graph, she sees the date and usage on a button above the graph, which she then taps.
6. Shelly can see a chart with a bar for each hour of the day she selected and the same day four weeks prior. She can see that her energy usage was much higher in the evenings than a month ago. She remembers her husband having fallen asleep in front of the TV and notes she should probably turn off the TV at night for him. She taps done and returns to the home screen.

driven by

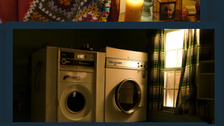
Five Big Research Insights

BASED ON RESEARCH WITH 30 USERS,
COMPETITIVE ANALYSIS AND SCHOLARLY RESEARCH

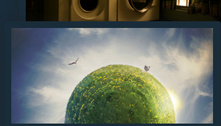
Energy usage is difficult to access and understand .

Energy usage is difficult to control.

Comfort, convenience and function come before energy use reduction.



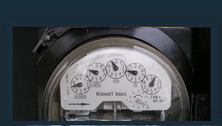
Comparisons can motivate energy use reductions.



Sustainability motivates investment; cost motivates reduction

Five Big Testing Insights

BASED ON ITERATIVE PROTOTYPING
AND RESEARCH WITH 35 USERS



Watching real-time consumption is a powerful motivator.

Too much comparison detail is discomforting.

Users don't want the solution and workflow to depend on others.

Alerts need to be actionable.

Leveraging existing models is important.

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