Energy Hog

home electricity monitor
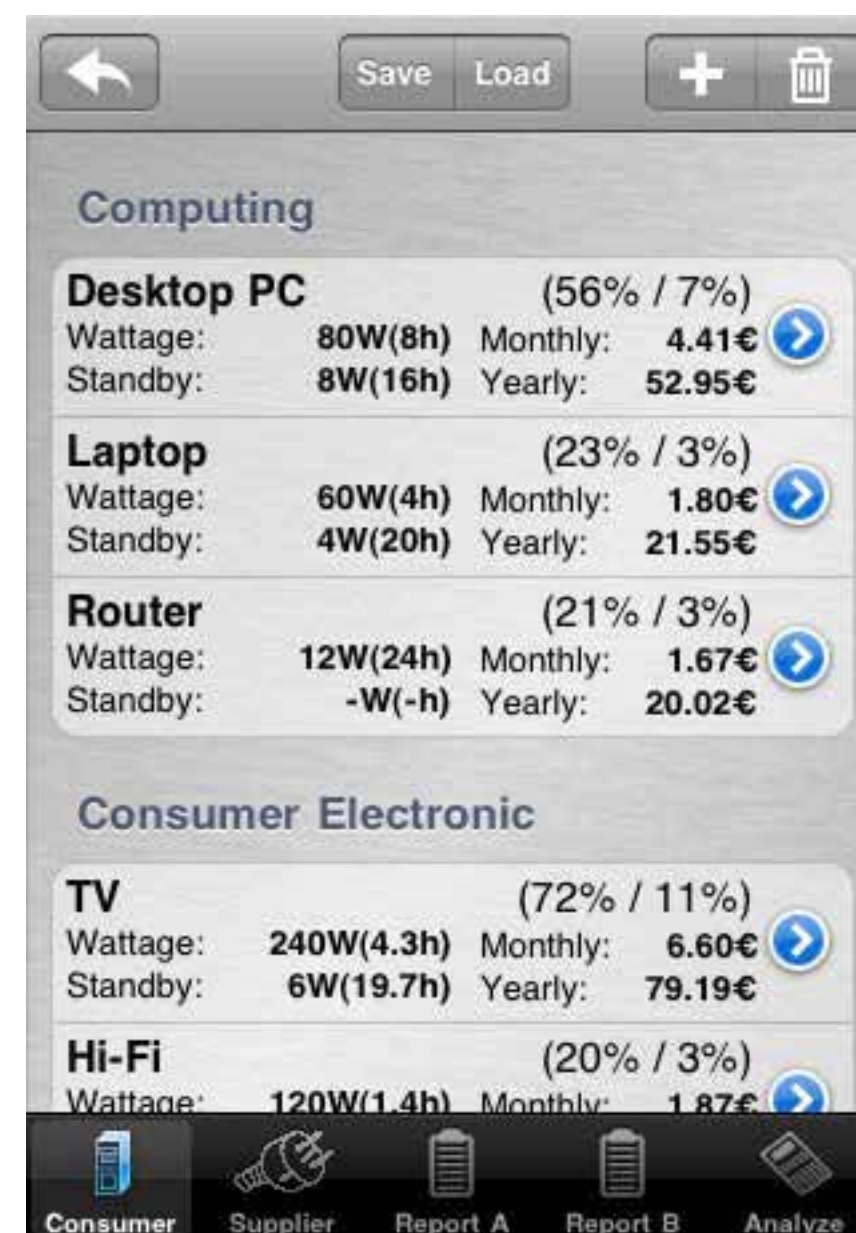
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Objective

An electricity consumption **monitor** and **advisor** for personal spaces. Tracking **specific devices** or **appliances** and providing information to **save electricity**.
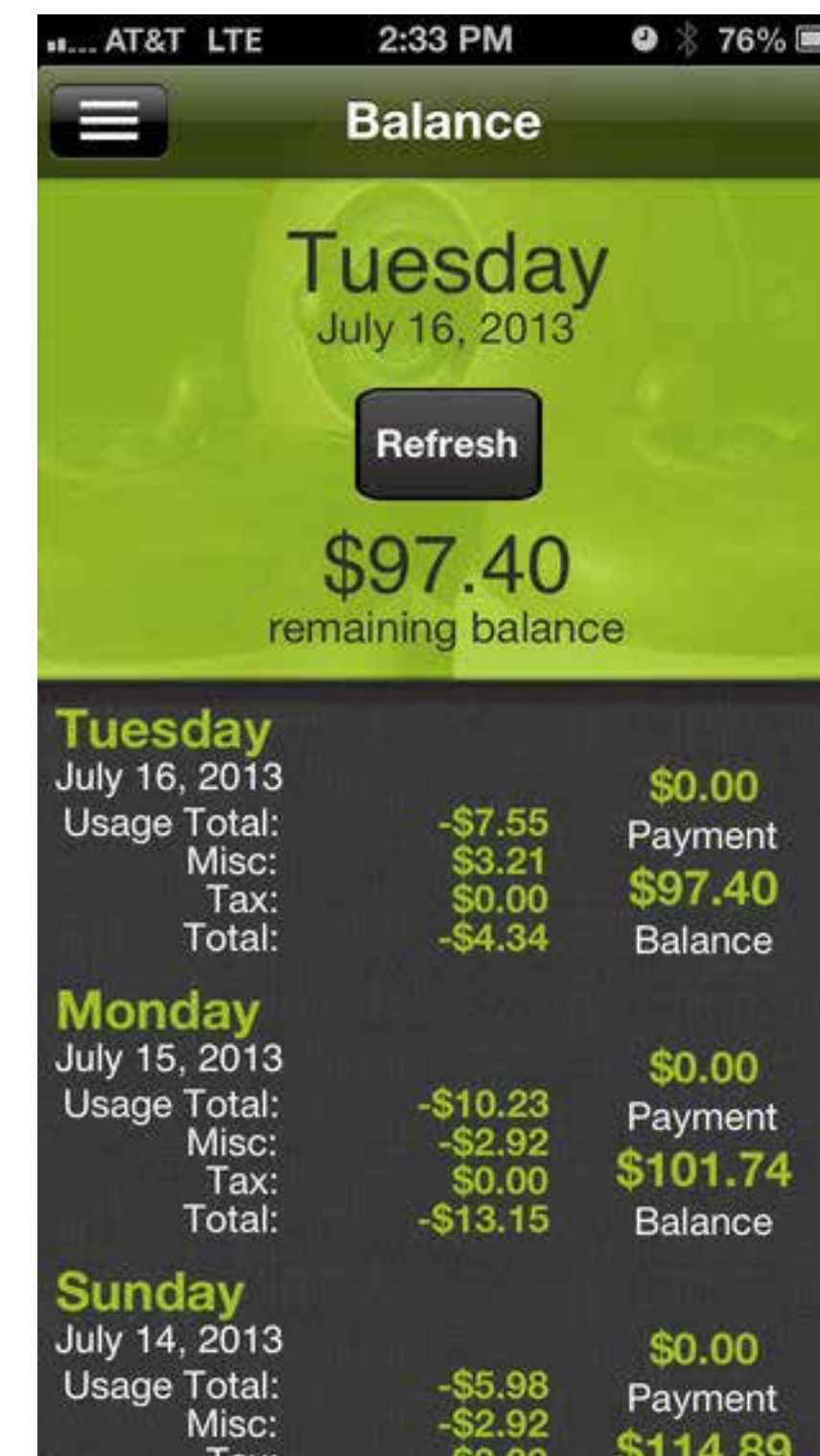
Competition

Electricity Cost Calculator
By Quintec GmbH

Energy Calc Pro
By Cyberprodigy LLC

MyUsage Mobile
By Exceleron Software

Reliant
By Reliant Energy Retail
Holdings, LLC

**Electricity Cost Calculator
for British Gas**
By App Ktchn Ltd

Competition is **not precise**, either with **generalized presets with limited options**... or **too many options** that ask **too much input** from the **everyday user**. These solutions only observe and **don't give feedback to improve**.

Audience

Age **20-40's** People who have enough experience with technology to **take action** with information gathered. People who have **moderate control** over their living space. **Middle class** individuals or couples.
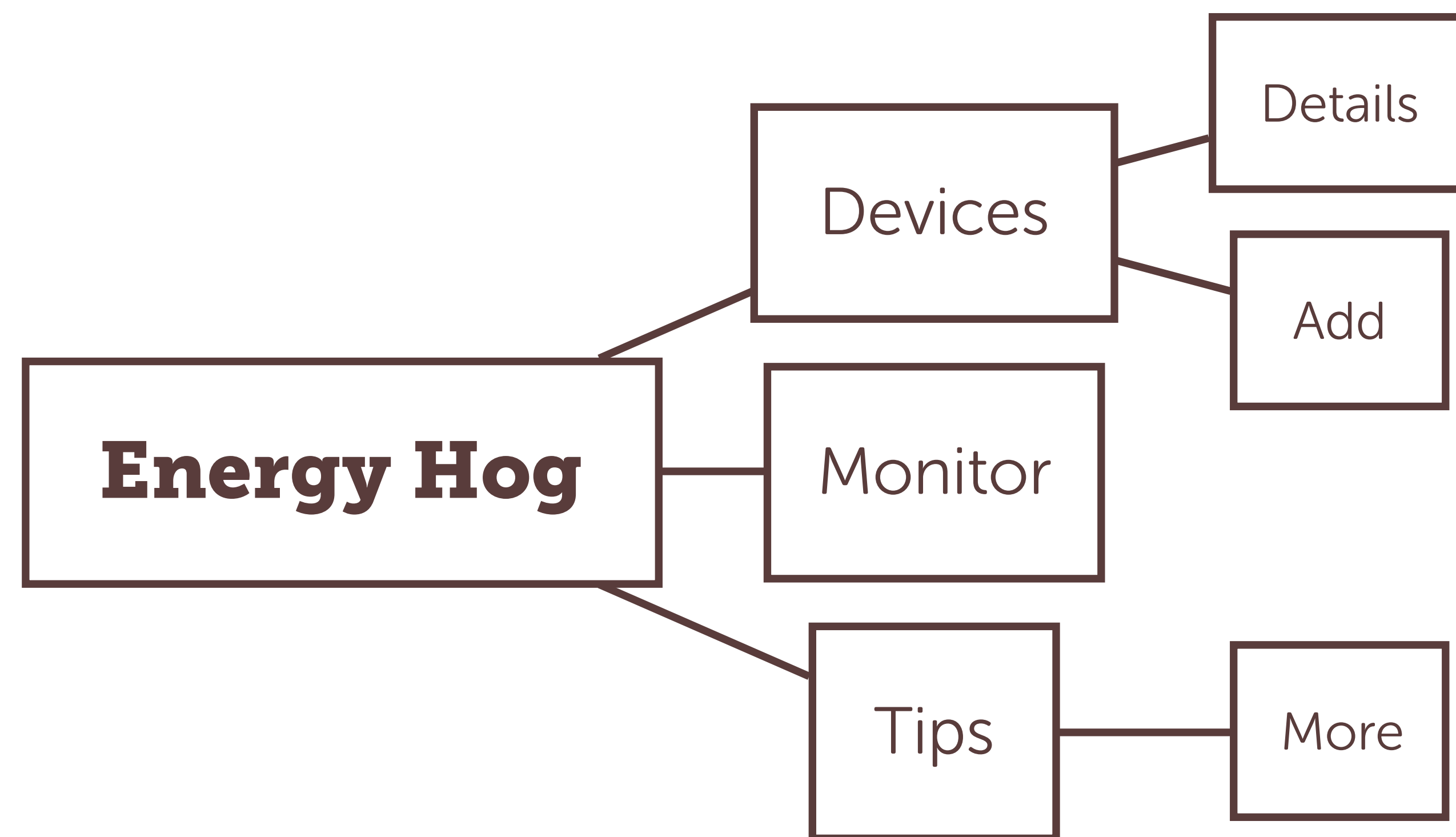
User Persona | Andrew

Andrew is a 26 year old nutrition & fitness trainer in Houston, Texas. He lives with a roommate in an apartment. Andrew grew up as technology was on the rise and he is comfortable with his smartphone and wrist fitness tracker. His home has an assortment of appliances and electronics.
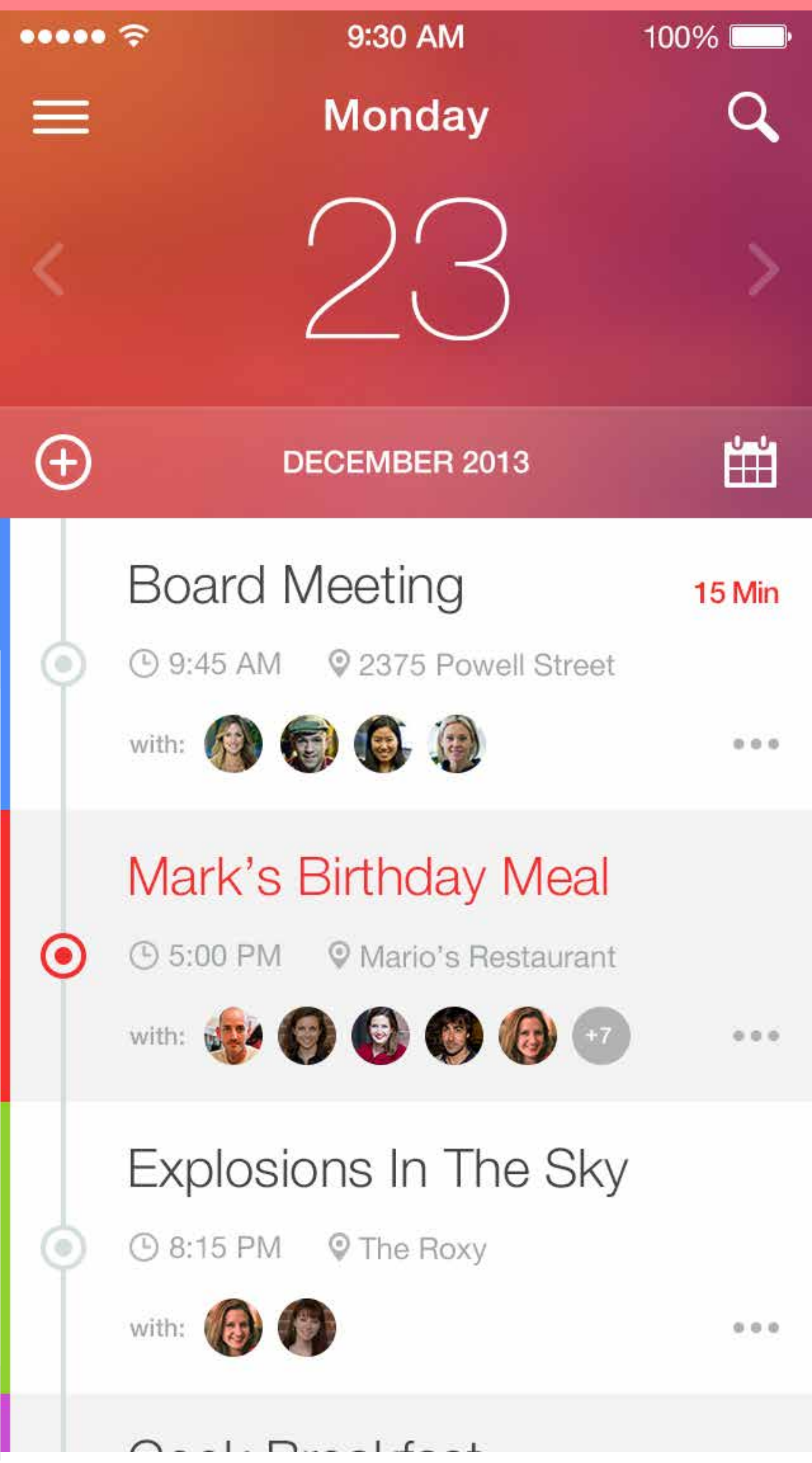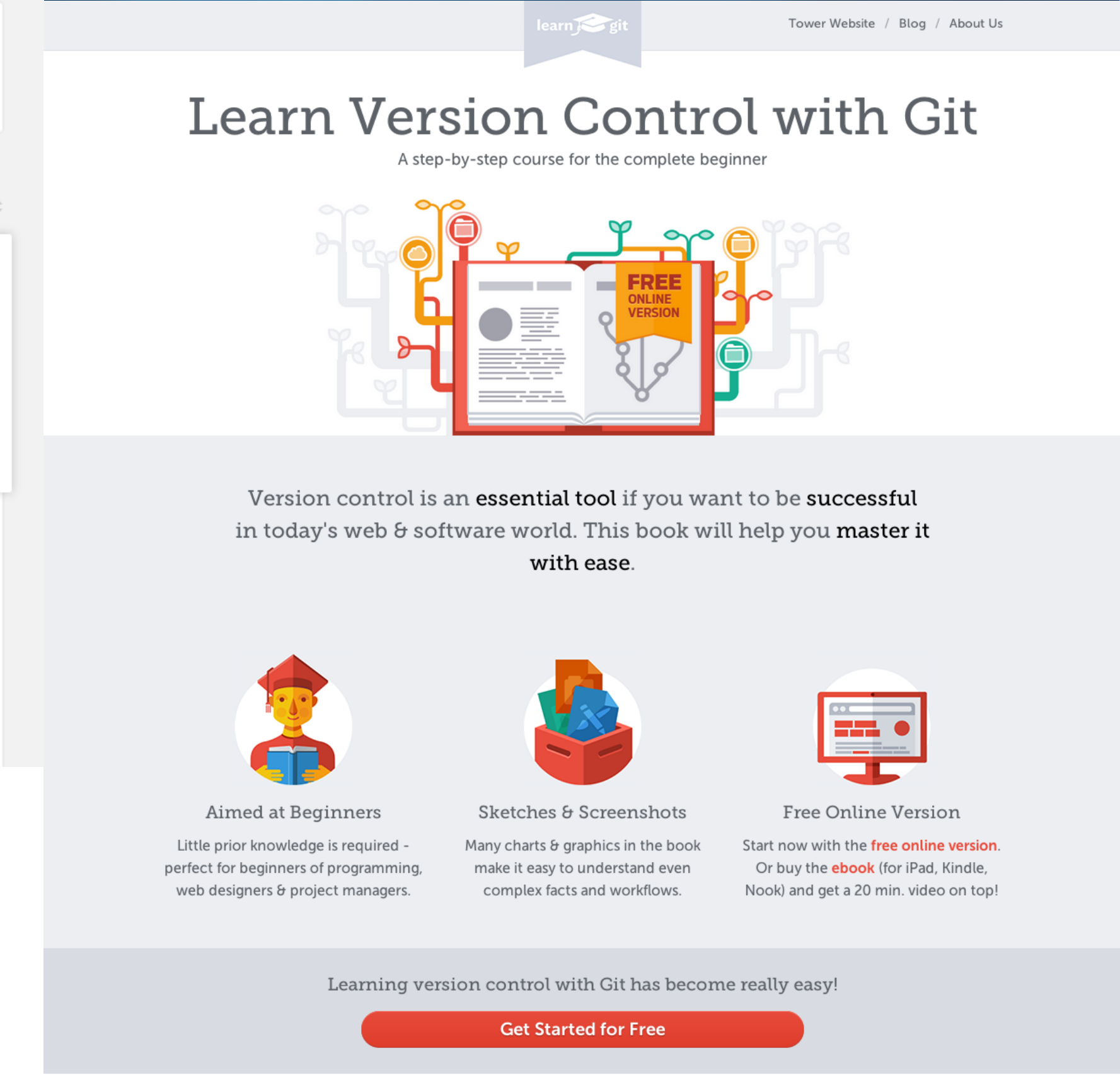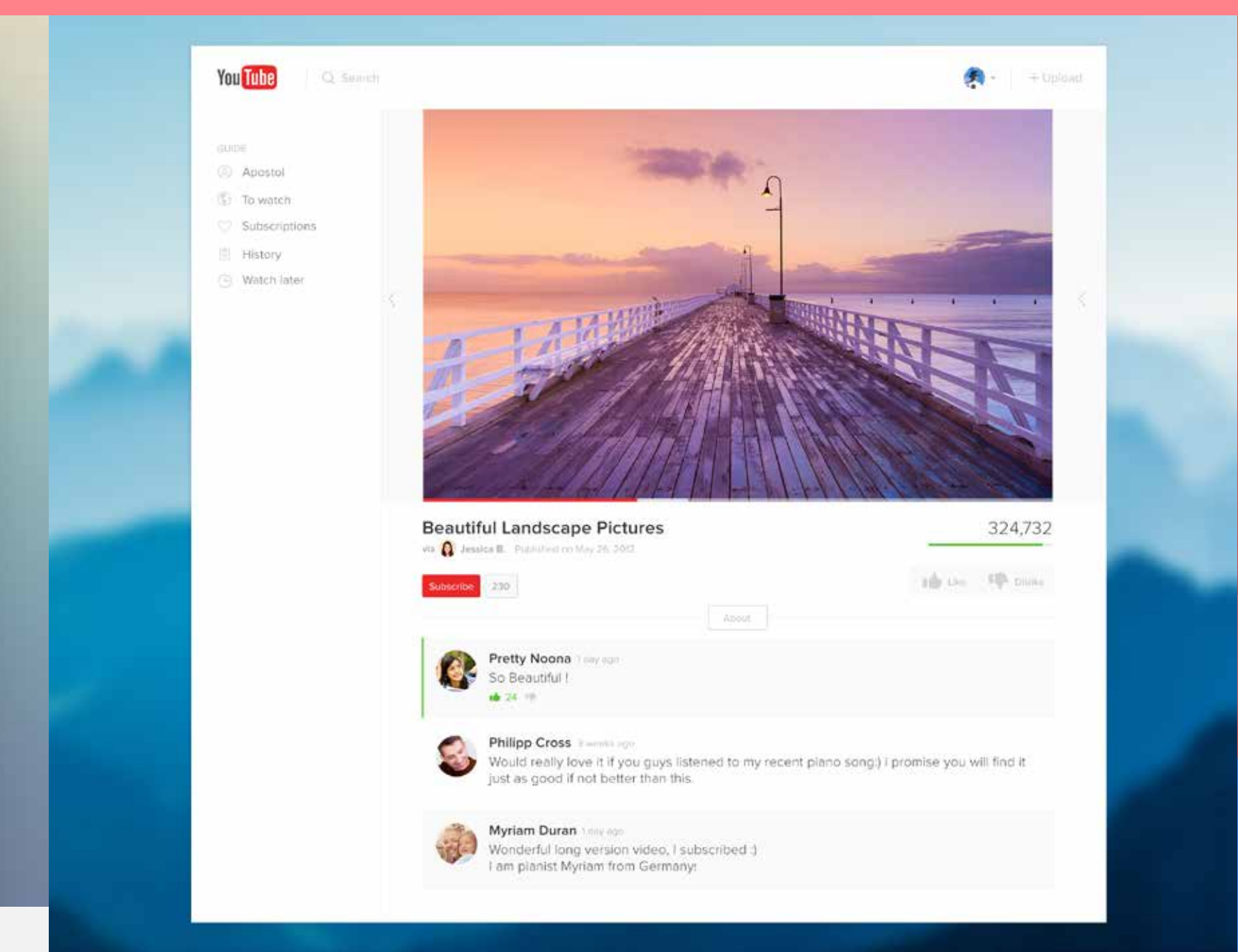
User Flow | First Iteration

```
                    ┌──────────┐
                    │ Details  │
          ┌─────────┤          │
          │ Devices │ ┌────────┐
          │         │ │  Add   │
┌──────────────┐    └─┤        │
│              │    ┌──────────┐
│  Energy Hog  │────│ Monitor  │
│              │    └──────────┘
└──────────────┘    ┌────────┐  ┌────────┐
          │  Tips  │──│  More  │
          └────────┘  └────────┘
```
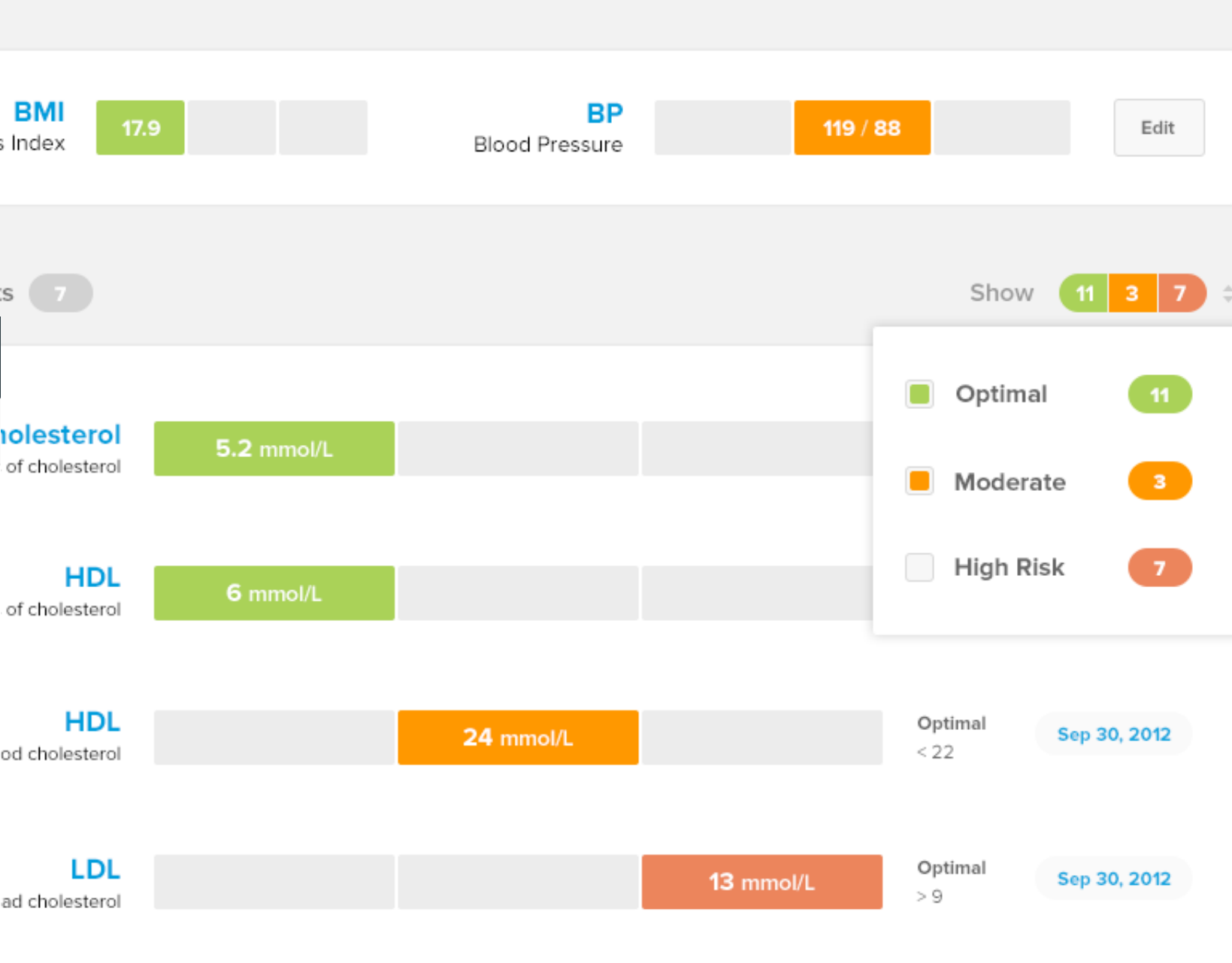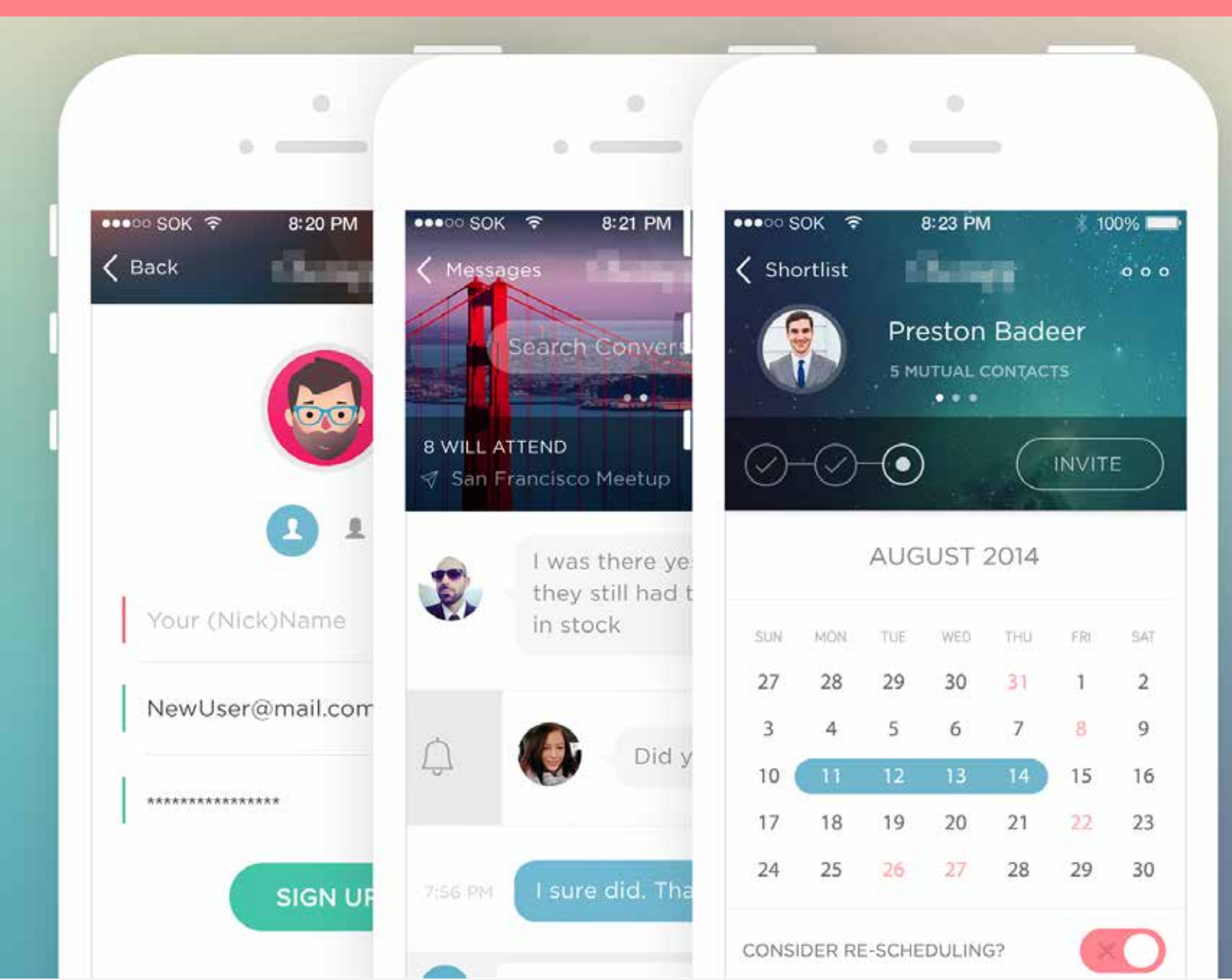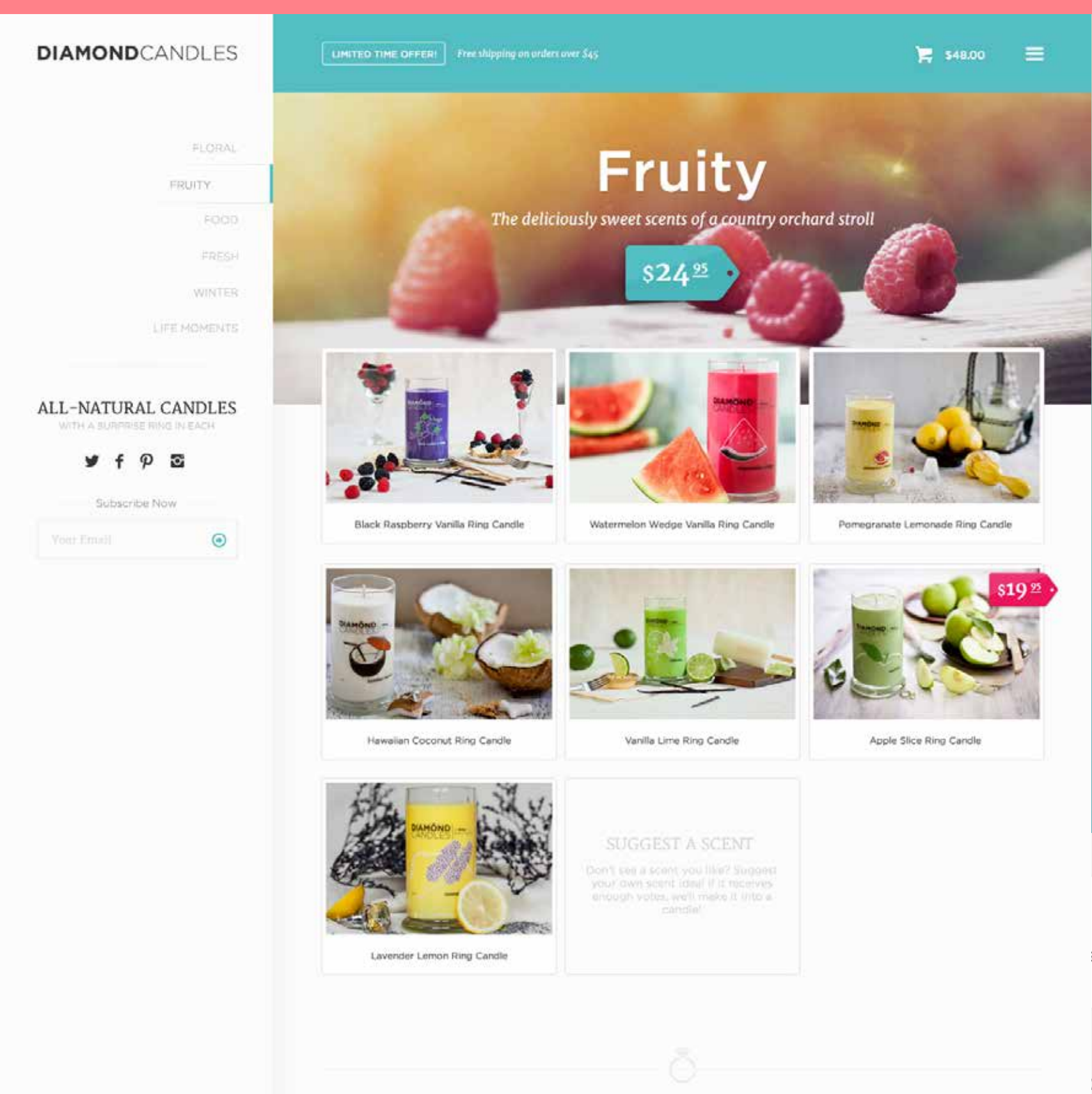
A very simple **flat hierarchy** built around the three **main features** of the application. **Monitoring, device management,** and **Energy-saving tips.**

As the project progressed the user flow evolved.

Devices Screen

Annotations

1 Toolbar with a filter and add tool.

2 Device list item. Shows average wattage number. Colored dot shows current power status (i.e. On, Off, Standby)

3 Unknown devices are new devices that have not been registered by the user. It will measure power consumption but won't be able to give device-specific features.

4 Quickly and automatically fill information by scanning (aka taking a picture of) the barcode of the device's package. Grabs all the information for an easy start.

Device List

Add Device

Filter/Sort Devices
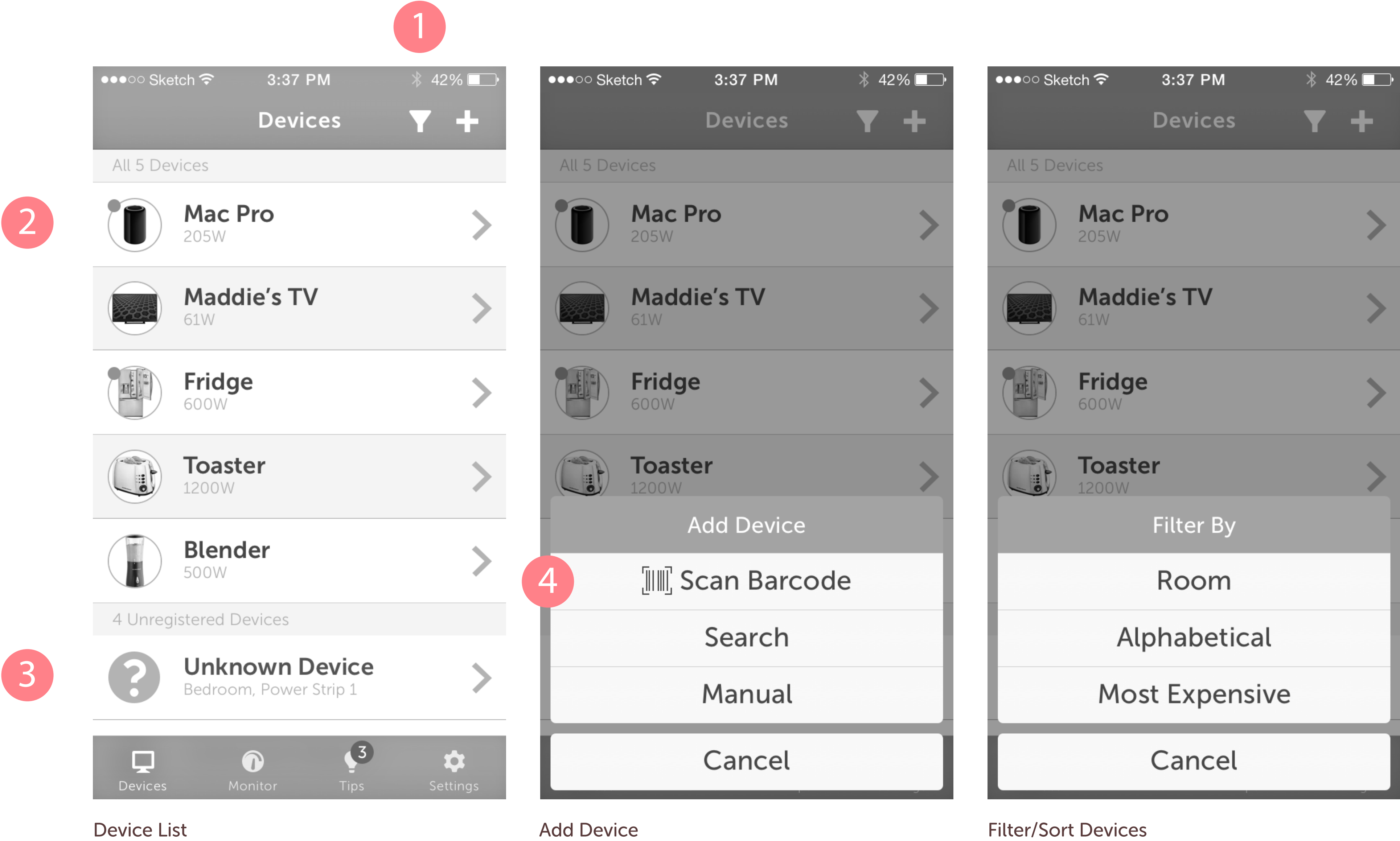
Device Detail Screen

Annotations

1 Colored circle to show power status

2 Pinch and swipe to change the view of electricity used. Views offered are Day, Month and Year. (Shown in more detail on Monitor wireframes.)

3 Total electricity and cost of selected time frame. Tap for auto-conversion of units.

4 Displays information entered about the device.

5 Allows you to fill information with a barcode that looks through a database online.

6 Editing information for your device is just like editing a contact card in iOS.
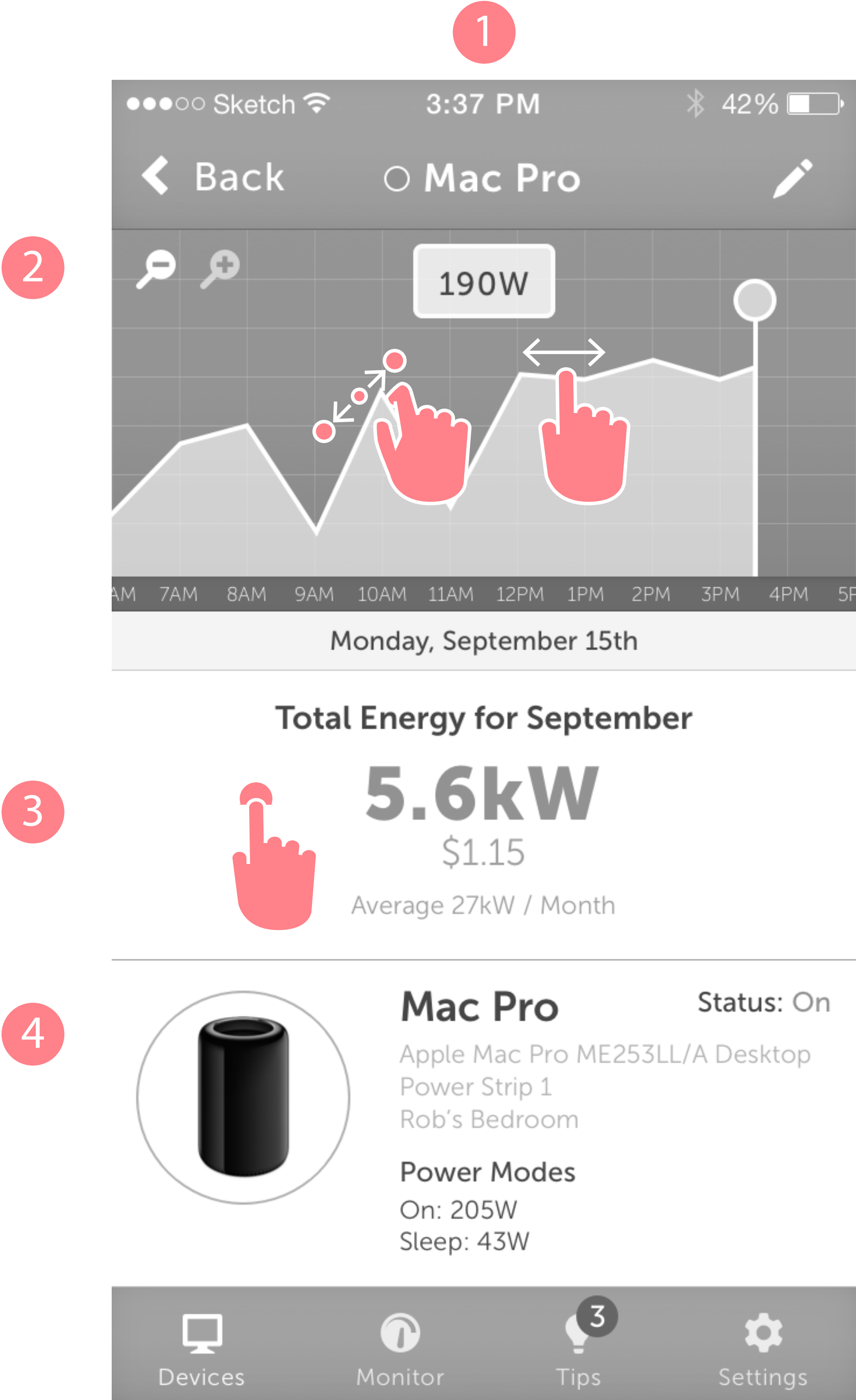
Device Detail Screen: Day View
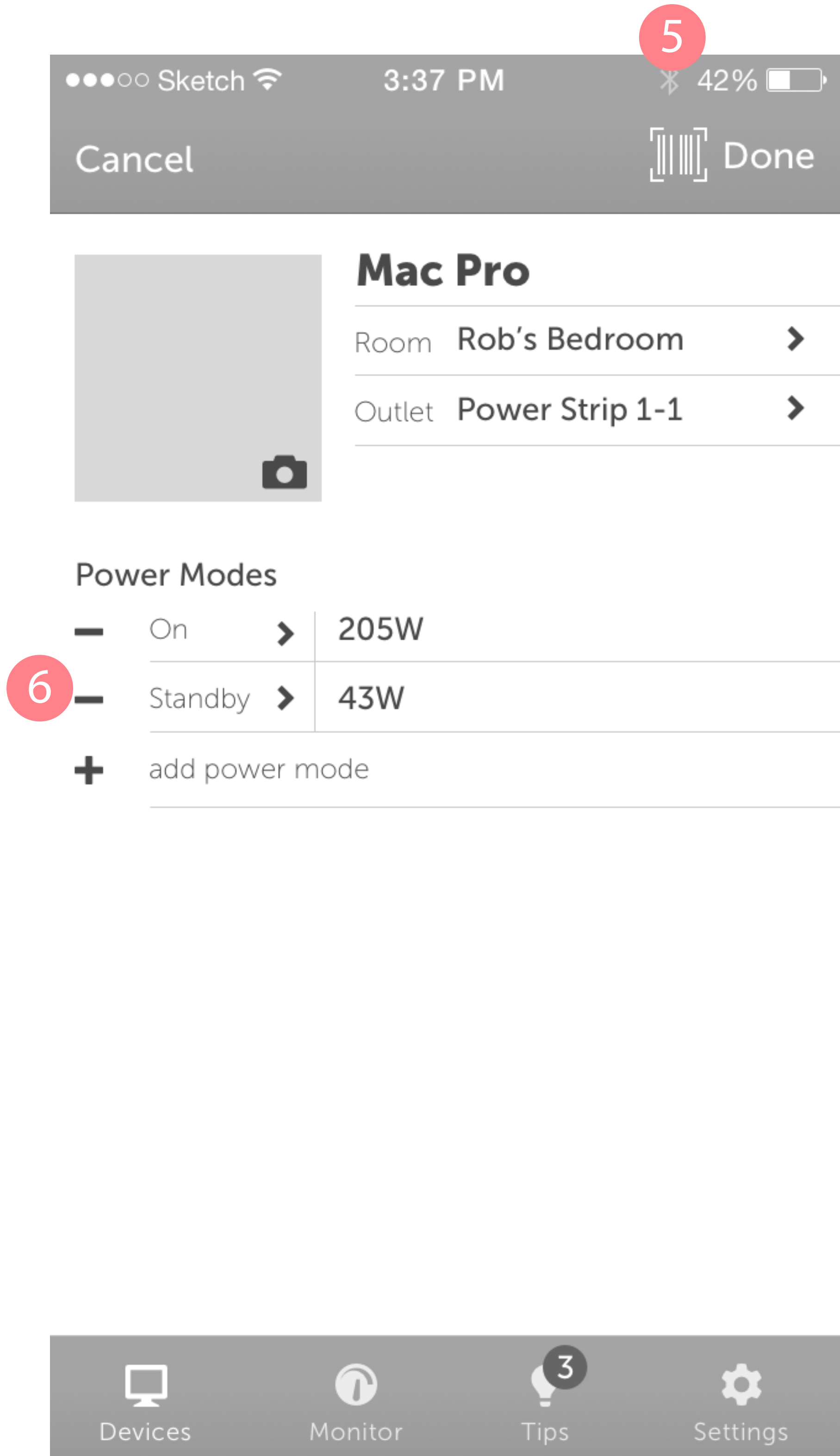
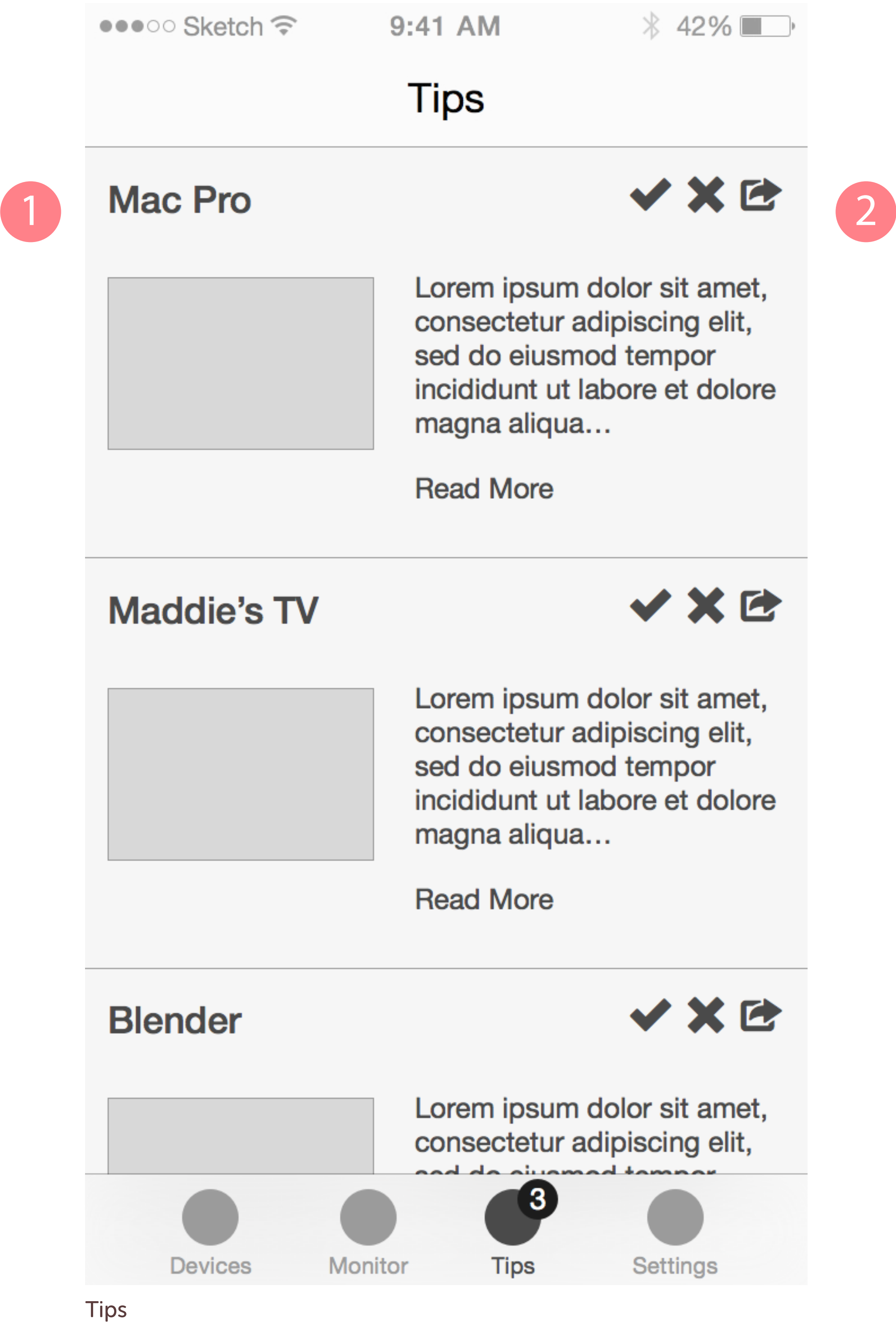Device Detail Screen: Edit View

Monitor Screen

Annotations

1 Pinch and swipe to change the view of electricity used. Views offered are Day, Month and Year. (Shown in more detail on Monitor wireframes.)

2 Total electricity and cost of selected time frame. Tap for auto-conversion of units.

3 Top 3 most expensive devices over the selected time frame.

Monitor: Day View

●●○○ Sketch 🖧   3:37 PM   ❋ 42% 🔋

Monitor

1.2kW

12PM 1PM 2PM 3PM 4PM 5PM 6PM 7PM 8PM 9PM 10PM

September 15th, 2014

Total Energy for September 15th

21.8kW
$4.33

Average 16kW / Day

Most Expensive Devices

1. **Fridge** 600W   **28%**

2. **Mac Pro** 205W   **7%**

Devices   Monitor   Tips (3)   Settings

Monitor: Month View

●●○○ Sketch 🖧   3:37 PM   ❋ 42% 🔋

Monitor

23kW

6th 7th 8th 9th 10th 11th 12th 13th 14th 15th

September 2014

Total Energy for September

406kW
$83.72

Average 400kW / Month

Most Expensive Devices

1. **Fridge** 600W   **30%**

2. **Mac Pro** 205W   **8%**

Devices   Monitor   Tips (3)   Settings

Monitor: Year View

●●○○ Sketch 🖧   3:37 PM   ❋ 42% 🔋

Monitor

406kW

JAN FEB MAR APR MAY JUN JUL AUG SEP OCT NOV

September 2014

Total Energy for 2014

9MW
$2074

Average 12MW / Year

Most Expensive Devices

1. **Fridge** 600W   **24%**

2. **Mac Pro** 205W   **7%**

Devices   Monitor   Tips (3)   Settings
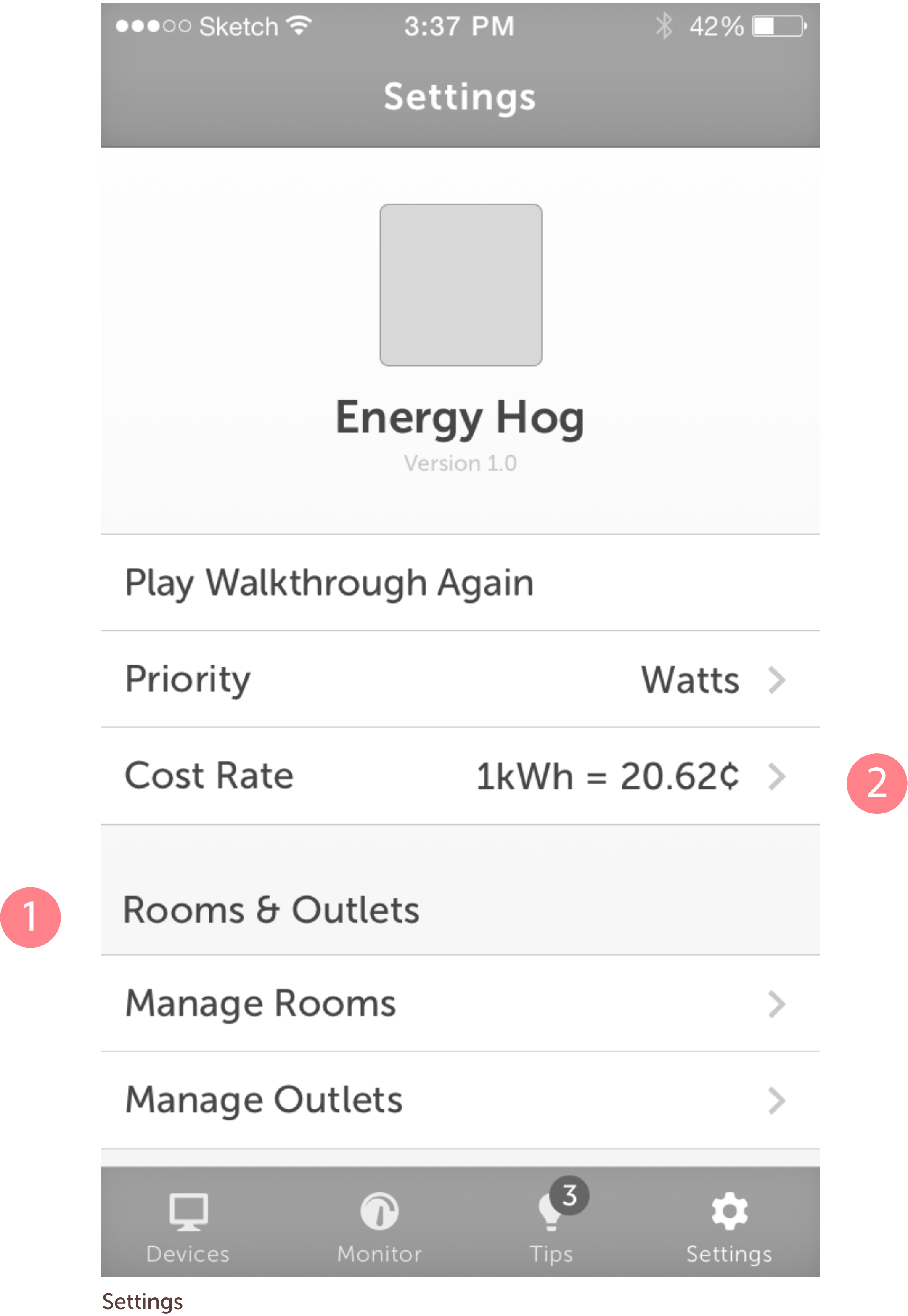
Tips Screen

Annotations

1 Tips are shown for devices you own and for reductions that could create the most impact on your bill.
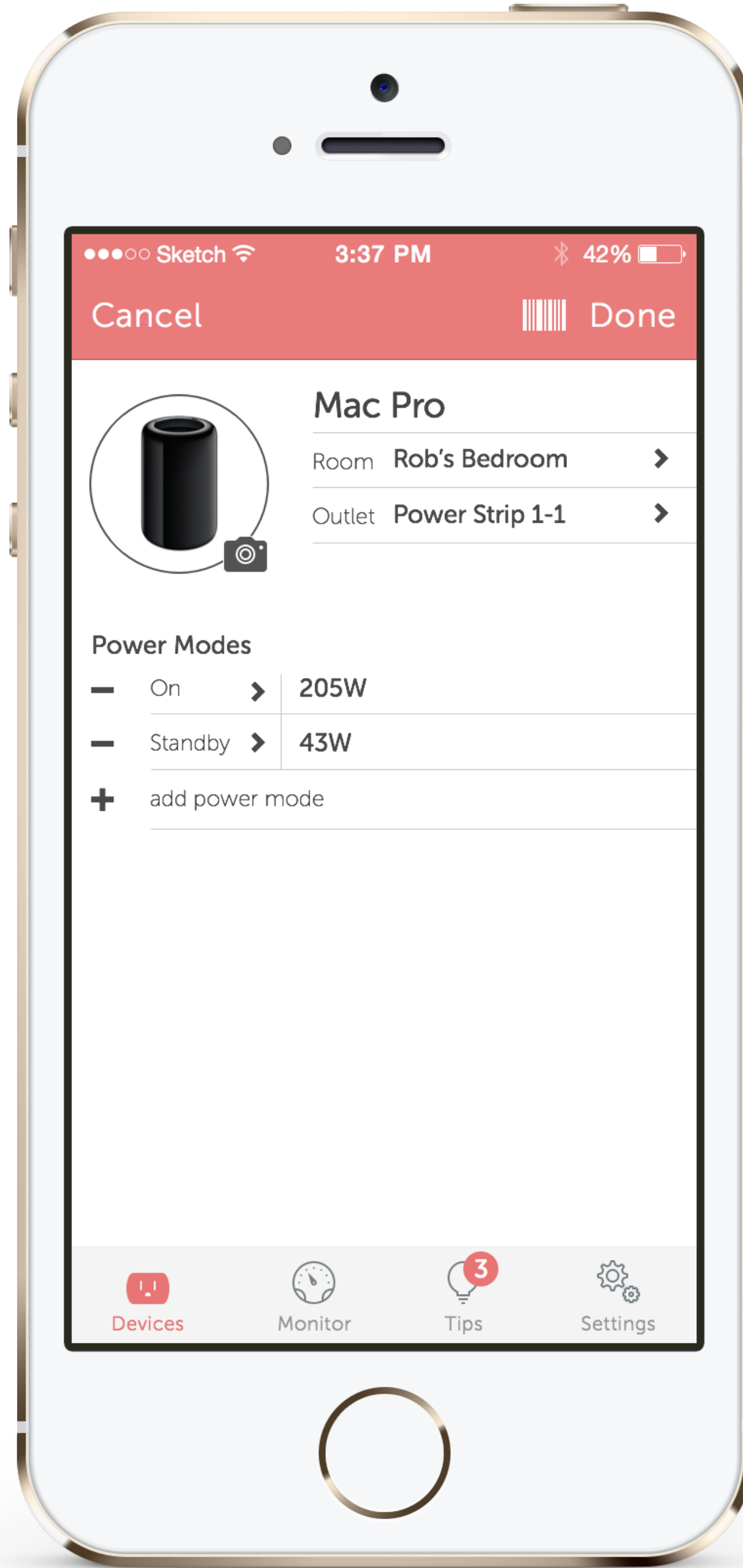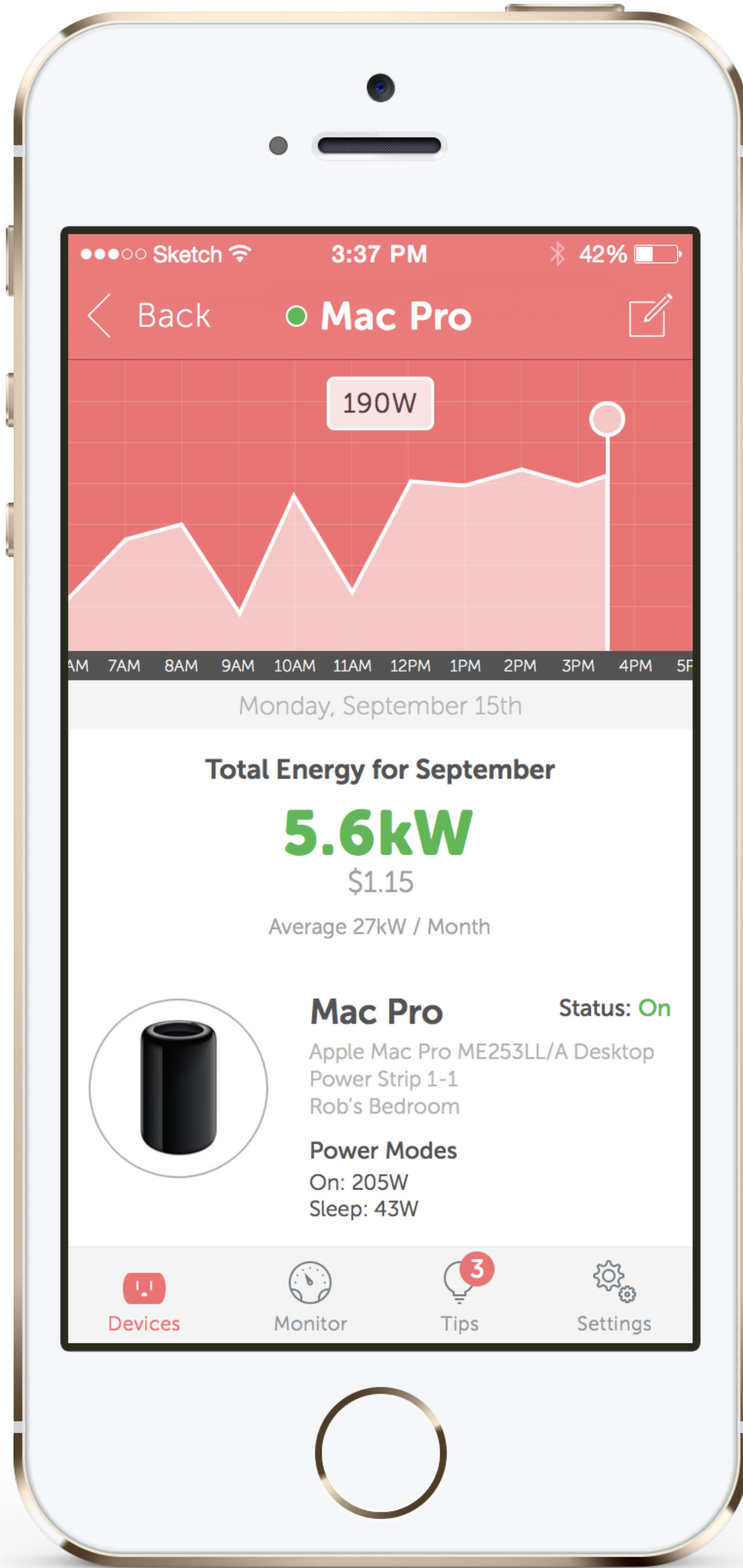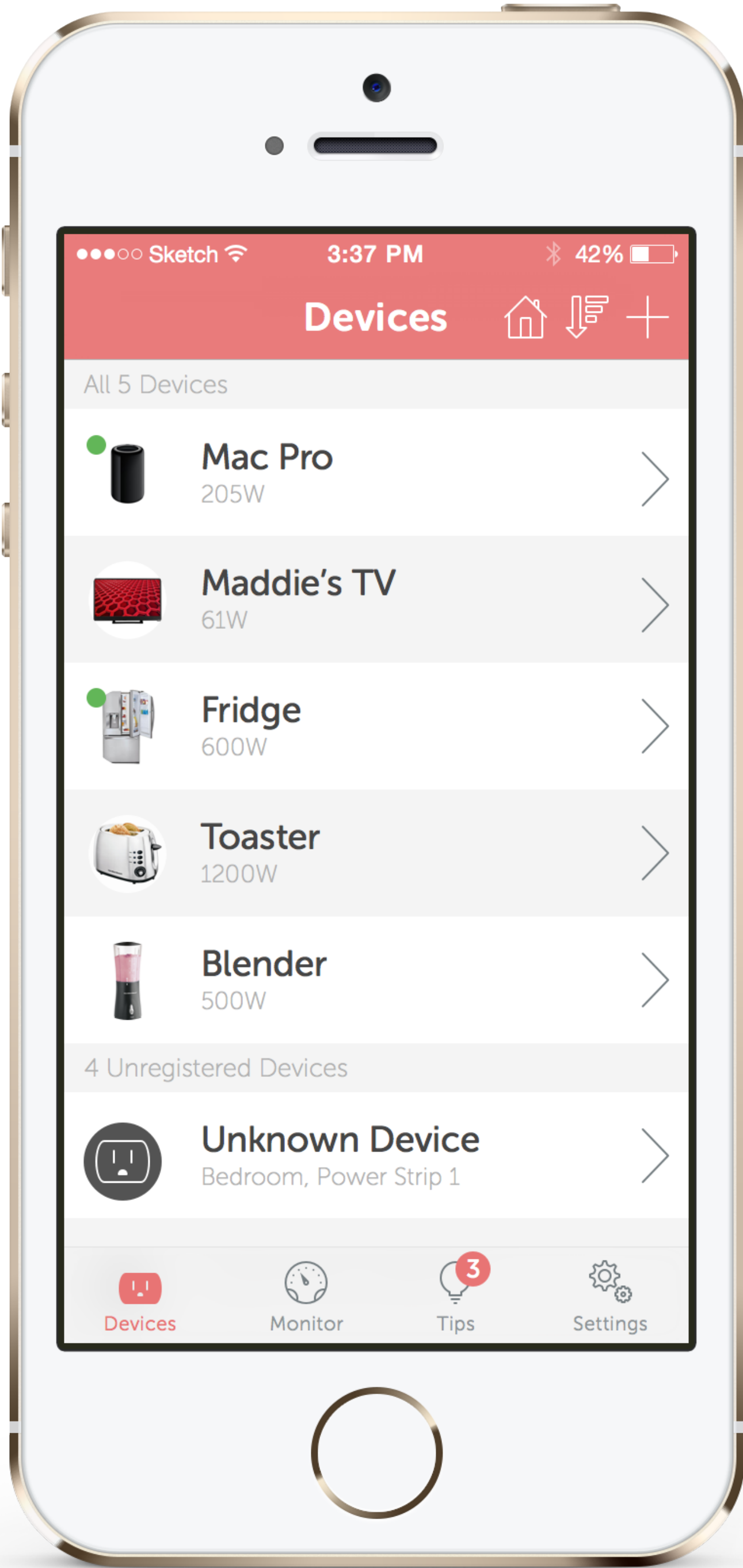
2 You can mark as completed, dismiss or share any tip

●●●○○ Sketch 📶 9:41 AM ᛒ 42% ▭

Tips

1

Mac Pro ✔ ✖ ↗ **2**

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua...

Read More

Maddie's TV ✔ ✖ ↗

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua...

Read More

Blender ✔ ✖ ↗

Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor
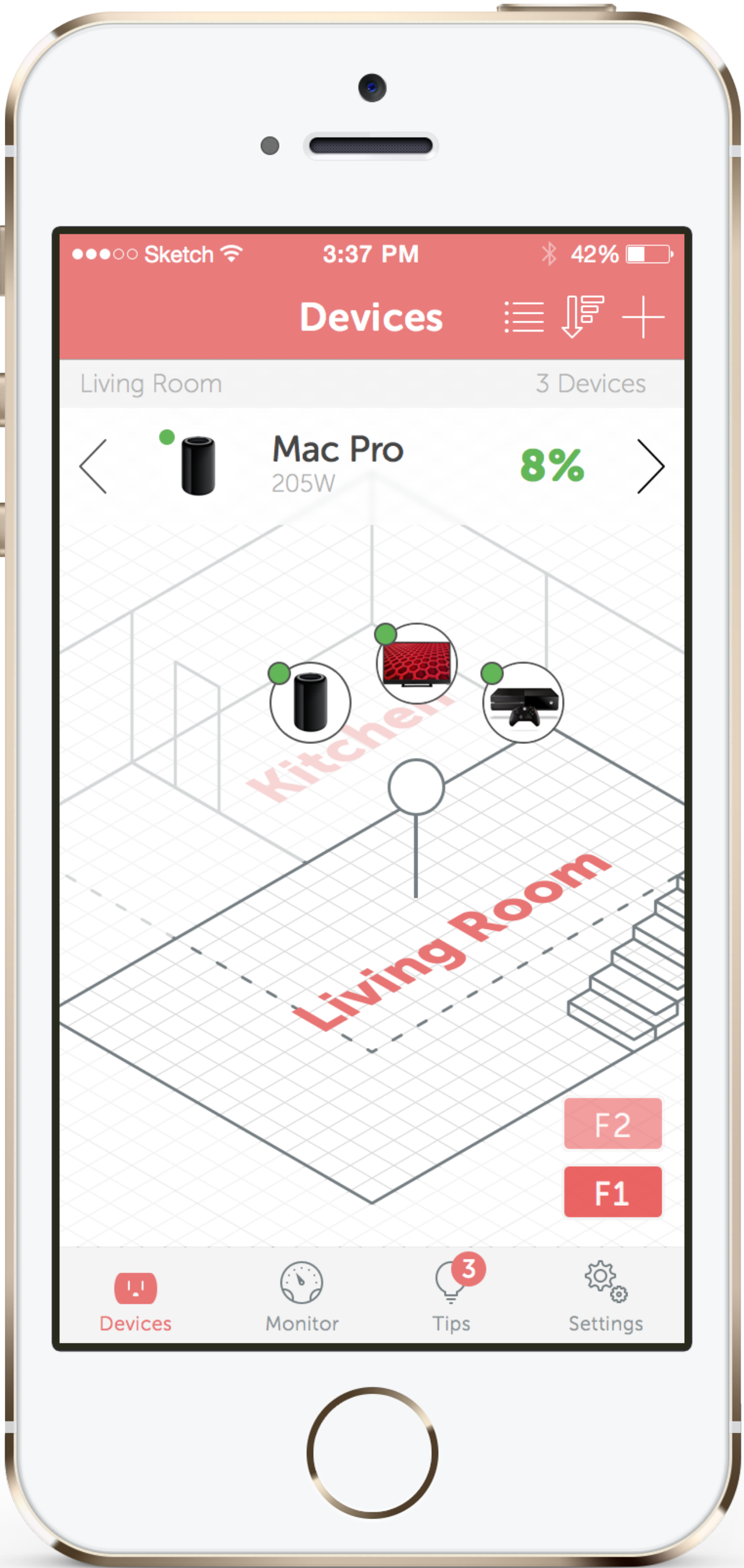
Devices   Monitor   **3** Tips   Settings

Tips

Settings Screen

Annotations

1 Create, Delete and organize tags to help you better organize your devices.

2 Leads to a number pad

●●●○○ Sketch 📶   3:37 PM   ❋ 42% ▭

Settings

Energy Hog
Version 1.0

Play Walkthrough Again

Priority	Watts ›

Cost Rate	1kWh = 20.62¢ ›	**2**

1 Rooms & Outlets

Manage Rooms	›

Manage Outlets	›

🖥 Devices   ⓘ Monitor   ③ 💡 Tips   ⚙ Settings

Settings

Energy Hog | Comps

Device Management

Energy Hog | Comps

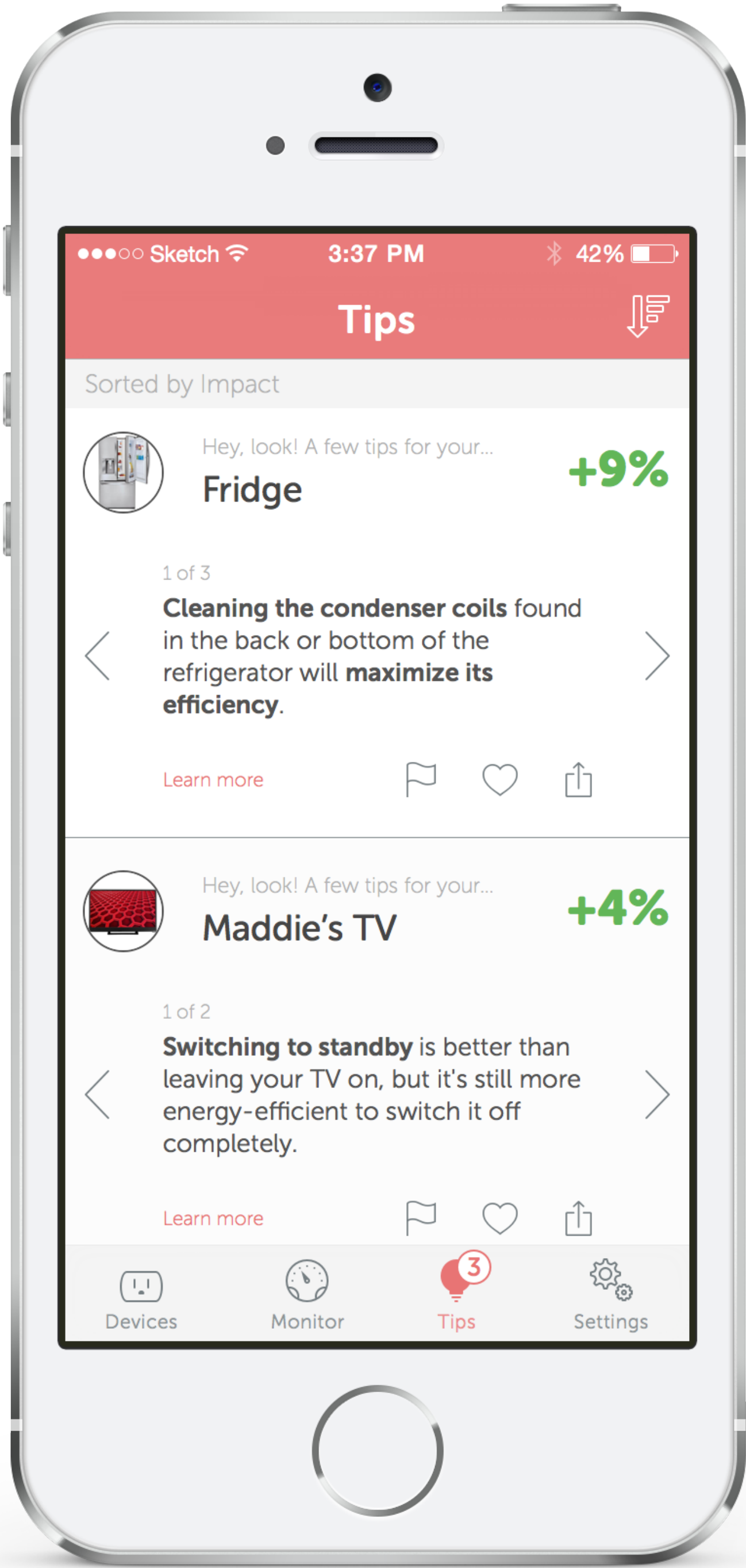## Monitor & Records
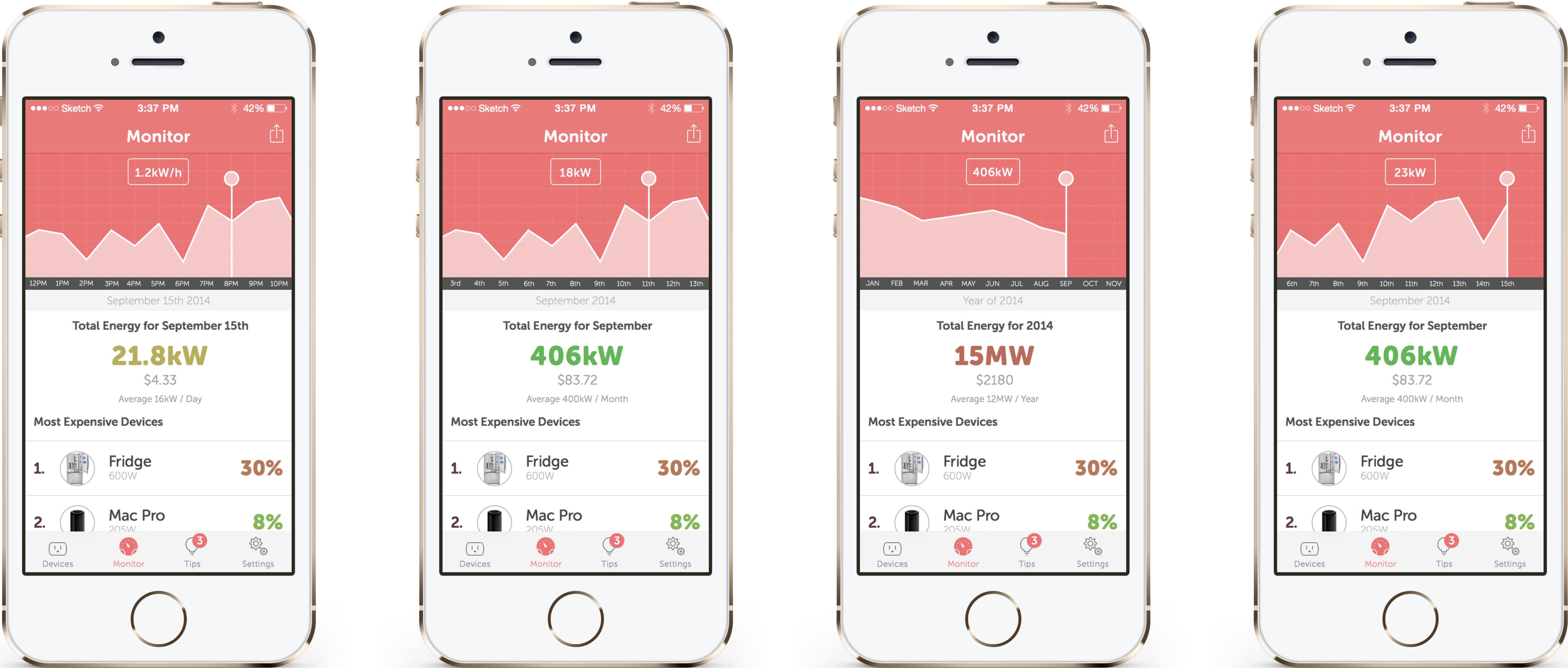
Tips

Energy Hog | Animation Storyboard

Energy Hog   Version: 1.0

1.1   4s

Description
App launches and shows first screen. User selects home view.

1.2   6s

Description
Because this is a switch in view there is no transition aside from a fade to white. User pans around the Isometric view of the home and selects their mac pro from the devices available.

1.3   7s

Description
User swipes through graph history and pinches to see larger scale of historical data.

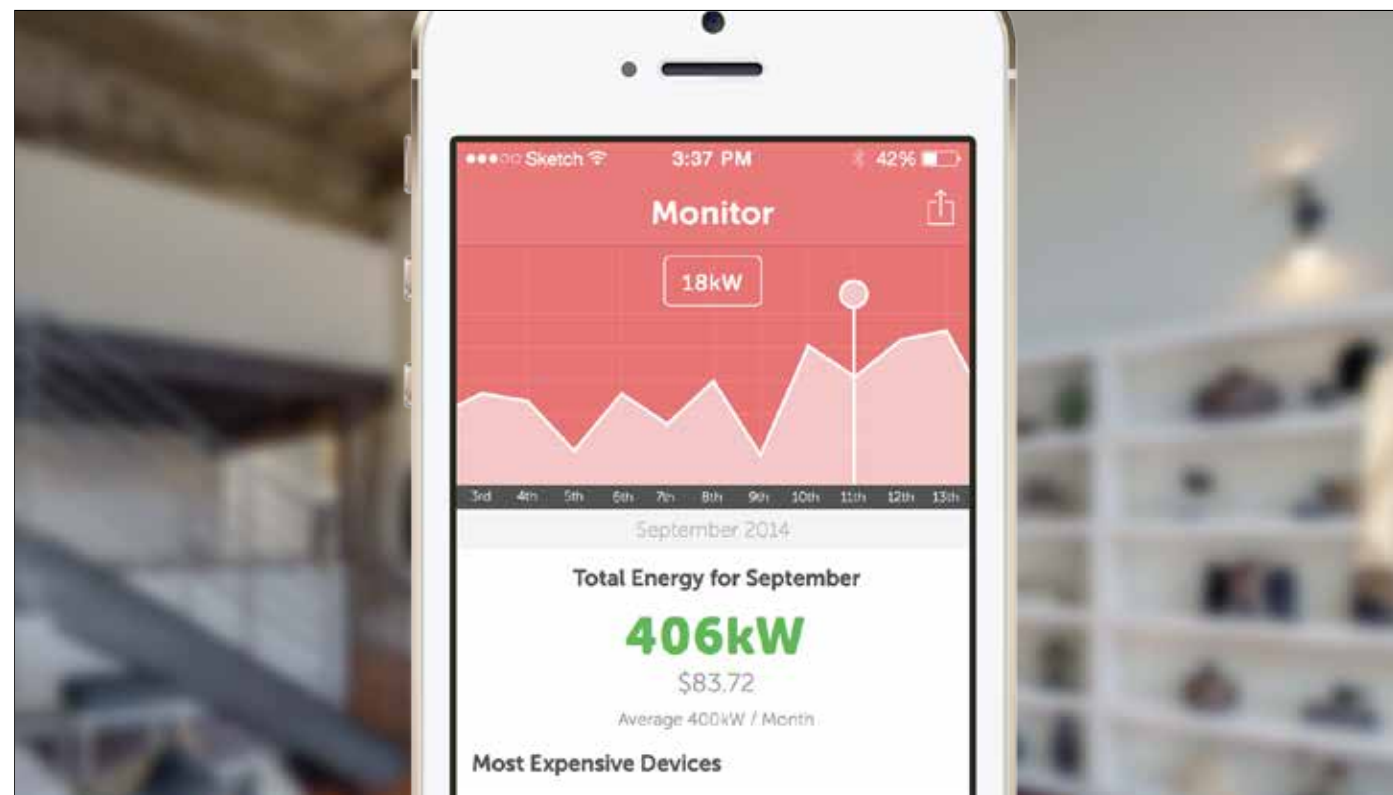**2.1**   5s

Description
User goes to the Monitor and does basically the same things to display the higher scopes. Lets the user know they can essentially do the same things to learn more about their home rather than just their devices.
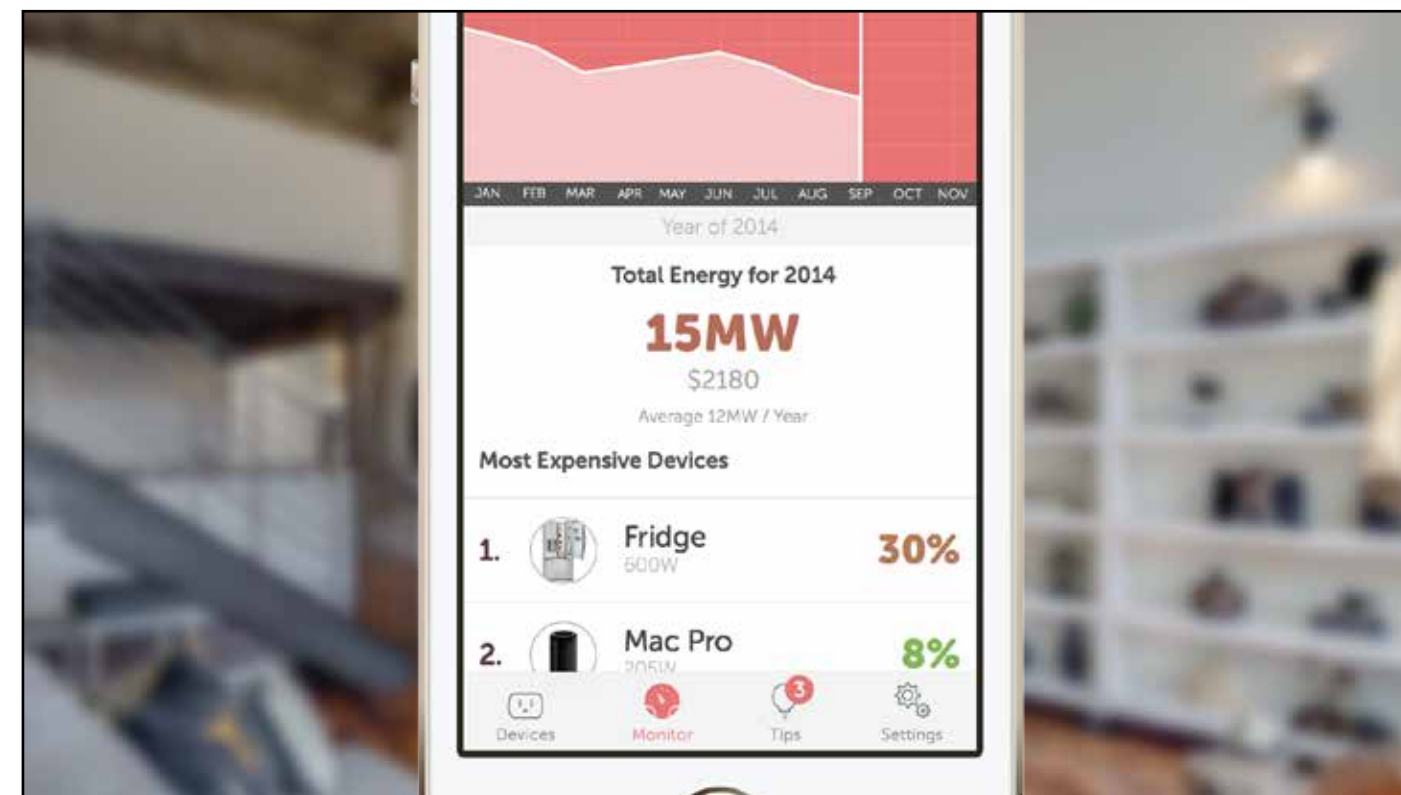
2.2   5s

Description
Zooms to better view to show the interactive graph functionalities and how they change the other information on the screen.

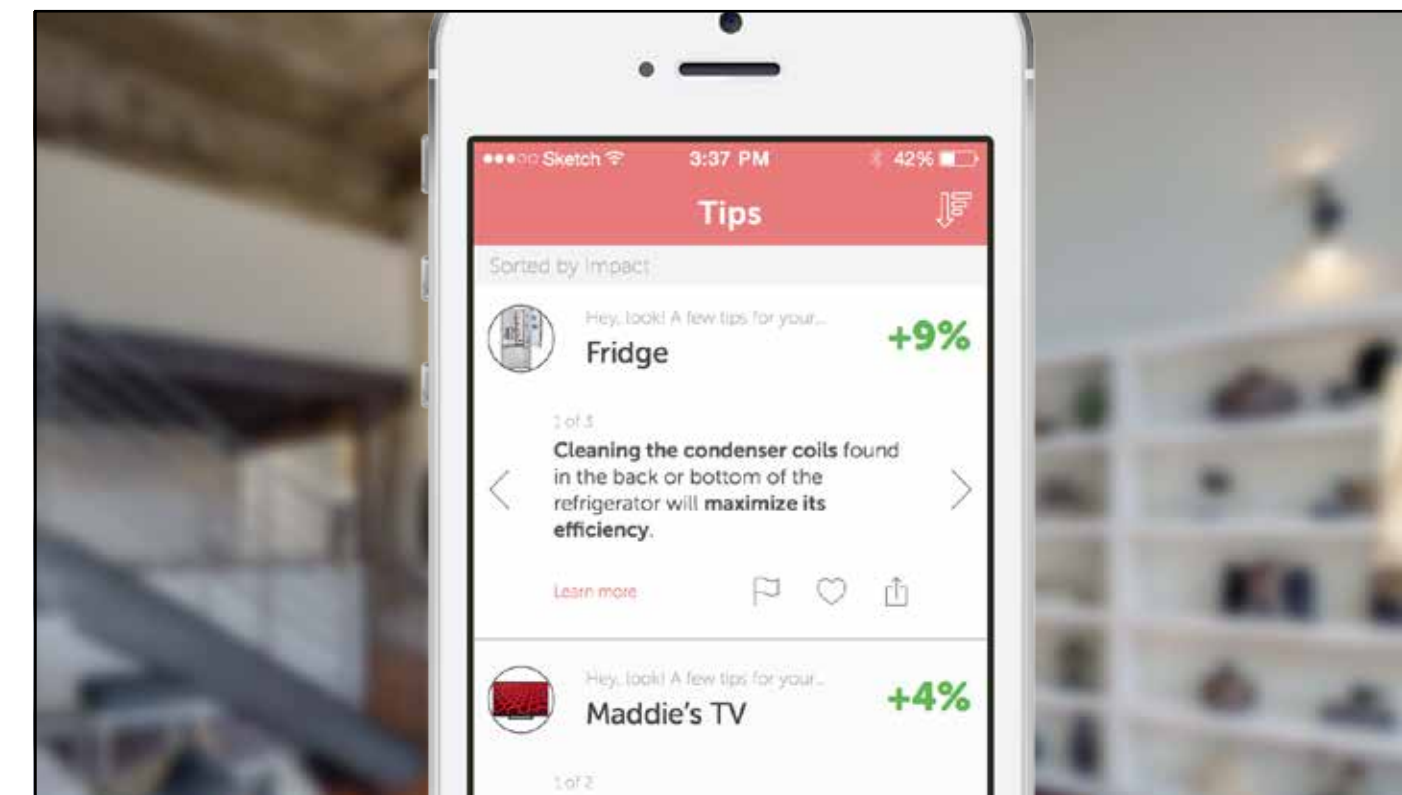**2.3**   3s

Description
User is discovering an unhealthy rating and is taking note of how expensive it is to run the fridge all year. User goes to the Tips screen.

3.1   5s

Description
User Reads and swipes over a few tips for the fridge and likes one of them.