

On-line Energy Estimator Tool

Arizona Public Service

Challenge: With over half of its 1.1 million residential customers on innovative Time-of-Use (TOU) rates, APS continuously looks to support its customers with tools and resources that allow them to save and manage their energy costs and to better understand the difference between demand and energy impacts of end-use equipment. APS engaged Tierra to support the development and delivery of a quick, easy, and accessible online tool to help customers learn about the typical energy usage of household appliances, their respective impacts on demand and energy consumption, and how those appliances can be programmed to operate during lower cost, off-peak hours. The tool needed to capture the variation for a diverse population of customers residing in single- and multi-family homes across two climate zones throughout the state.

Project Highlights:

- Reviewed and benchmarked ten energy estimation tools from other energy providers
- Collaborated with 30 APS customers via focus groups to test interface usability and messaging
- Teamed with multiple internal APS departments and web developers to design and implement the tool
- Quantified on- and off-peak energy and demand estimates for over twenty household appliances, across two climate zones, and three home types for winter and summer seasons
- Developed and implemented test scripts to ensure the tool functioned as expected and delivered accurate estimates of energy usage and demand

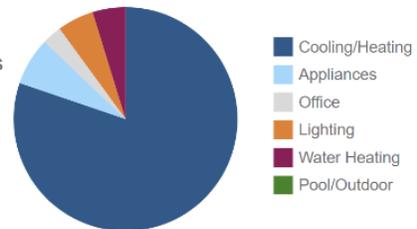
Approach: Tierra provided market and customer research services, and engineering analysis to support APS in developing and launching the online tool. Tierra reviewed ten similar tools offered by other electric utilities and cooperatives and collaborated with a group of 30 APS customers to identify the aspects of each tool that were most effective and engaging to incorporate into the final design. Tierra teamed with key departments across the APS organization to proceed from conceptual design through implementation. Tierra applied its engineering expertise to estimate the energy usage and demand for over twenty household appliances in single and multi-family homes across Arizona’s desert and mountain climate zones. Finally, Tierra developed and implemented test scripts to troubleshoot and identify improvements in the final development and delivery of the online tool.

Outcome: APS customers now have a quick and intuitive resource that helps them better understand the difference between demand and consumption of various end-use appliances, manage energy usage, and save on energy bills. The energy estimator helps customers make informed decisions about programming and operating HVAC, cooking, laundry, water heating, electric vehicle, pool, office, and entertainment appliances to use energy when it costs the least. Access and engage with the Energy Estimator tool [here](#).

Your estimated usage

Usage breakdown

Based on the selections you made, here is a breakdown of your estimated usage by category.



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