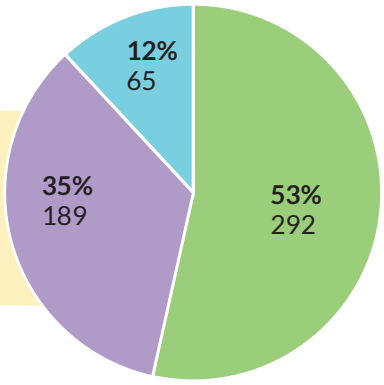
FlexEnergy
SNOHOMISH COUNTY PUD

Year 1 Winter Summary

(November 2021-February 2022)

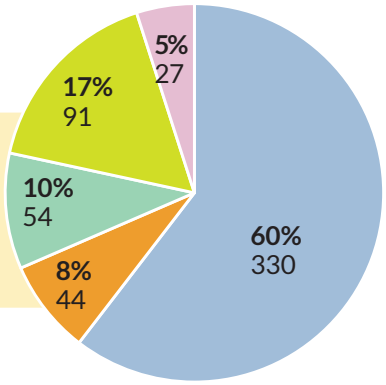
546 PUD Customers Participated

Participation by Group



- FlexTime *(time of day)*
- FlexPeak *(critical peak pricing)*
- FlexResponse *(demand response)*

Participation by Device



- Customer Choice (no technology)
- Google Nest thermostats
- ChargePoint EV chargers
- JuiceBox EV chargers
- Ecobee thermostats

FlexEnergy Peak Events & Hours

14 FlexResponse & FlexPeak Events by Month

NOVEMBER	DECEMBER	JANUARY	FEBRUARY
2 (6 hours)	5 (17 hours)	4 (12 hours)	3 (12 hours)

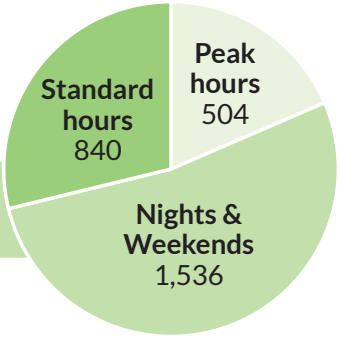
By Duration:
1x 2 hours
7x 3 hours
6x 4 hours

By Time of Day:
8x AM
6x PM

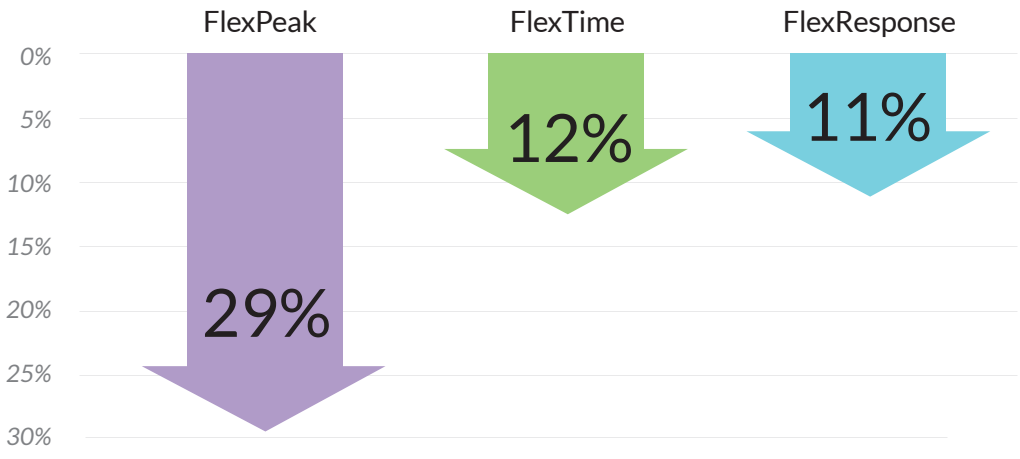
By Weekday:

Mon	Tue	Wed	Thu	Fri
4	3	3	3	1

FlexTime Winter Hourly Summary:



Peak Reduction Achieved



Peak reductions measured during peak periods are matched against a control group.

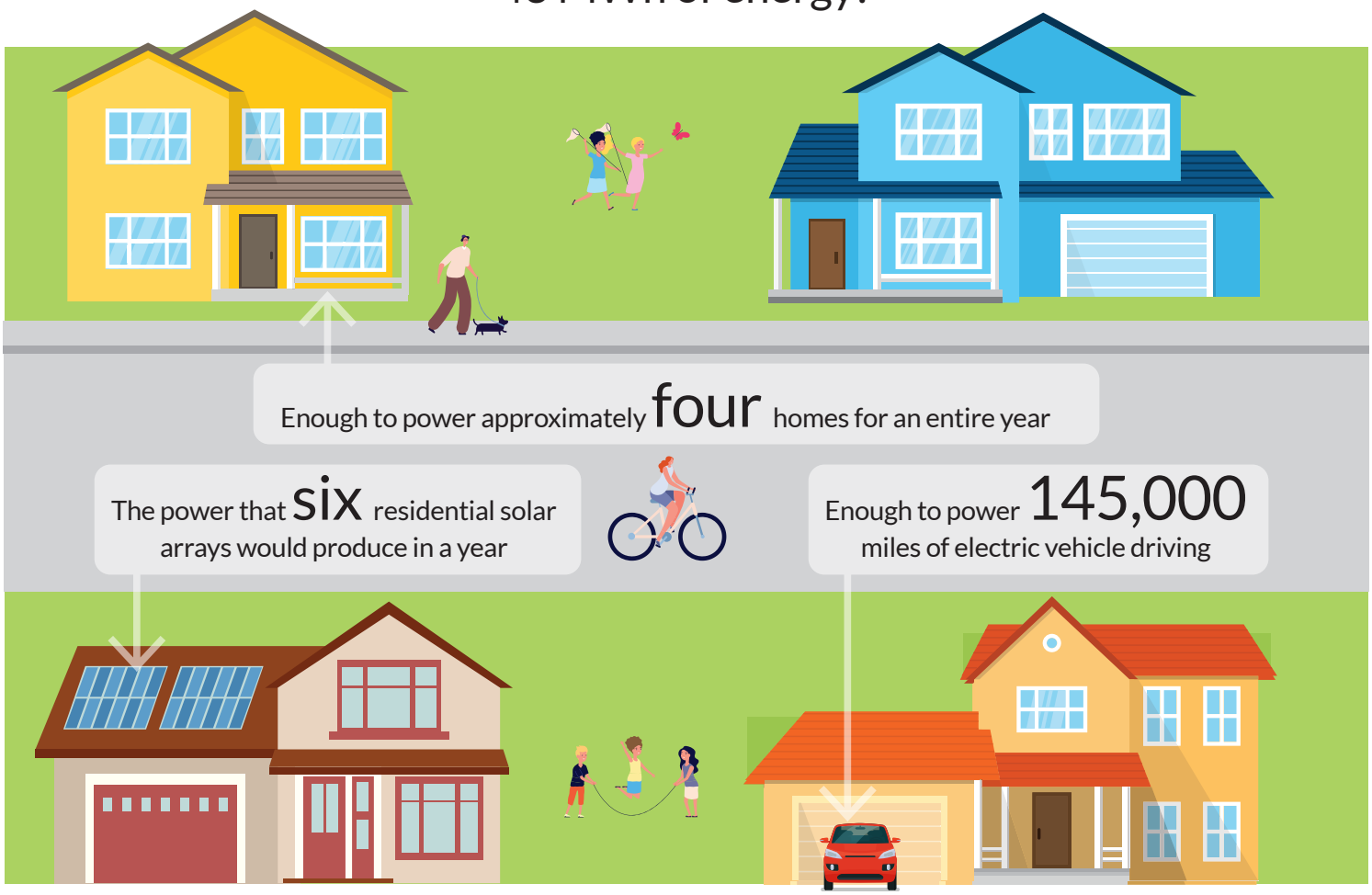
For FlexTime, peak reductions reported include average energy use reductions across all morning and evening peak periods.

For FlexResponse and FlexPeak, peak reductions reported include average energy use reductions during all peak events called.

During peak events, the PUD's system load was typically 25.8% higher (1,210 MWh) than in other hours (average 962 MWh).

Total Energy Shifted

During the winter peak season, **546** FlexEnergy customers shifted a total of **43 MWh of energy!**



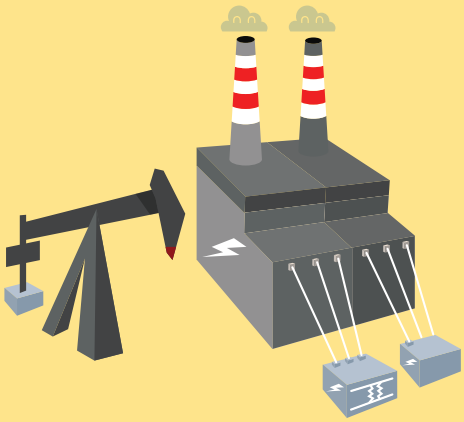
Avoided Costs

Avoided market power purchases

- During peak events, market power purchase prices were typically 54% higher ($62.32 per MWh) than in other hours (average $40.44 per MWh).
- On Dec. 20, the PUD called an event when prices were $126.26 per MWh or 312% higher than average.

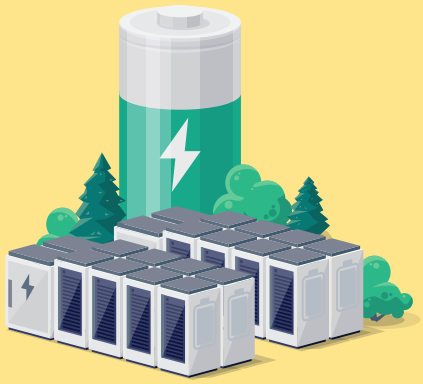
If **546** customers hadn't shifted their energy in the FlexEnergy pilot, these are examples of costs the PUD could have incurred to meet peak demand:

Costs avoided thanks to shifting energy use off-peak



with a natural gas generator:*

$7,876



with utility battery storage:

$14,177

What would that mean scaled up?

If 10,000 customers had been part of FlexEnergy, it would have avoided costs of:

Natural gas generator: $144,514

Utility battery storage: $260,128

If 100,000 customers had been part of FlexEnergy, it would have avoided costs of:

Natural gas generator: $1,445,138

Utility battery storage: $2,601,284

*The PUD has no plans to build a natural gas generator – it is shown here for illustrative purposes

Customer Feedback

Top reasons for participating in FlexEnergy

- 85% to save money
- 63% to save energy
- 43% to support clean energy
- 24% to support the community
- 43% to support the grid

Top reasons for leaving FlexEnergy

- 54% Moved from residence
- 27% Preferred Budget Payment Plan or standard PUD rates
- 19% Installed solar or became ineligible for other reason

I'd never really thought about peak energy demand.

Now I start my dishwasher later at night instead of right after dinner. I also do my laundry on the weekends, and charge my electric vehicle at off-peak hours.

Customer Testimonial – Jenny L.

SNOHOMISH COUNTY PUD
PUBLIC UTILITY DISTRICT NO. 1

Energizing Life in Our Communities

Summary based on data available as of 5/12/2022

For more about the FlexEnergy pilot programs, visit snopud.com/flexenergy