

Environmental Energy Technologies Division
LAWRENCE BERKELEY NATIONAL LABORATORY, BERKELEY, U.S.A.
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How Juneau Alaska Cut Its Electricity Use 30% in Six Weeks

Background

On 16 April, 2008, an avalanche severed the transmission line connecting the city of Juneau, Alaska, to its source of hydropower. Diesel generators instantly replaced the lost power but the price of electricity jumped 500%.



Juneau (pop 31,000) is the capital of Alaska. The only way to get there is via boat or plane.

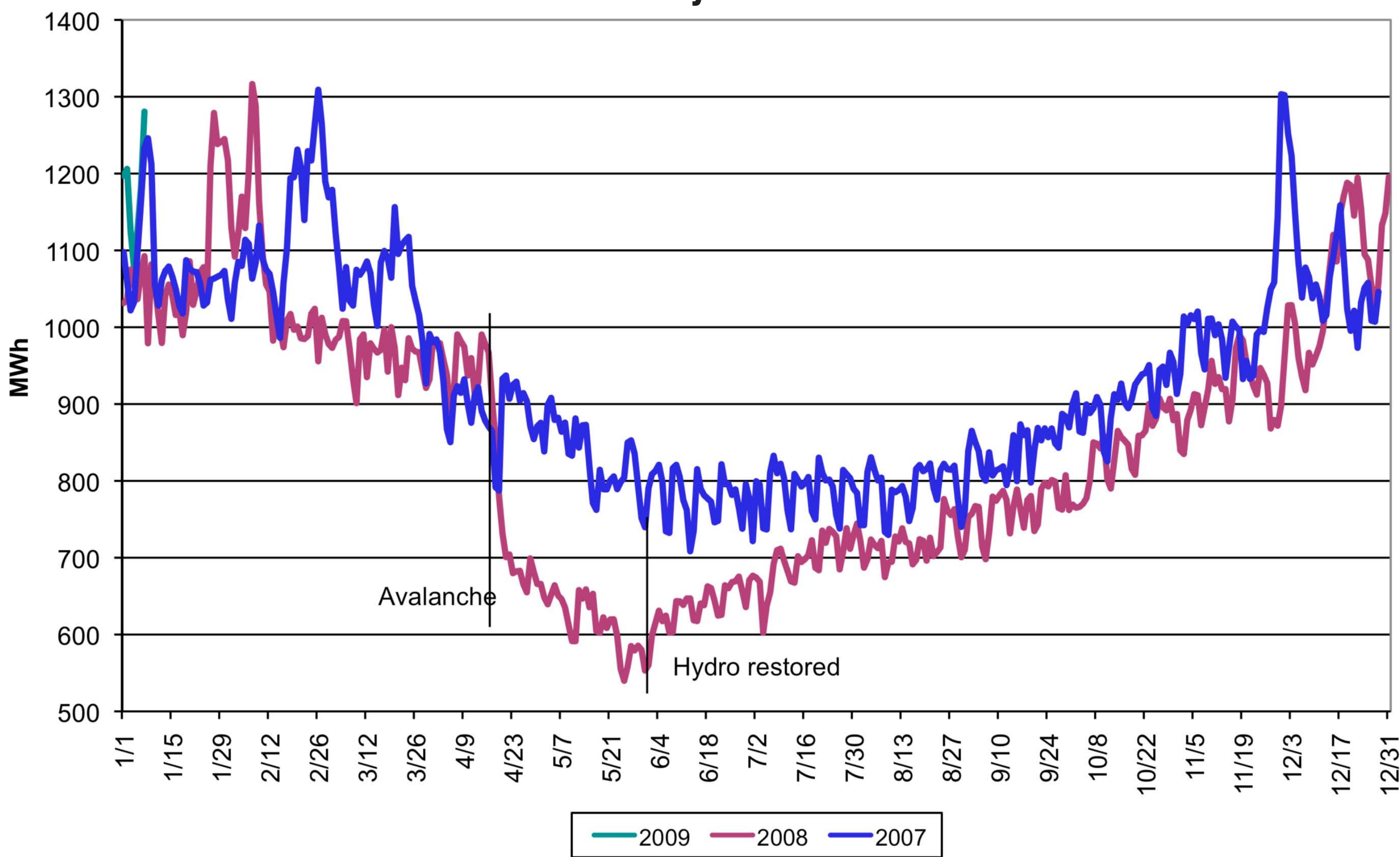
The Response

- 1) Panic – “an economic catastrophe”, “no conservation possible”
- 2) Juneau quickly organizes a conservation campaign – logo, information, aid to elderly and poor, updates
- 3) Juneau saves electricity

Results

- Juneau cut its total electricity use about 30% compared to the previous year.
- The economy survived.

Juneau Daily Electric Use

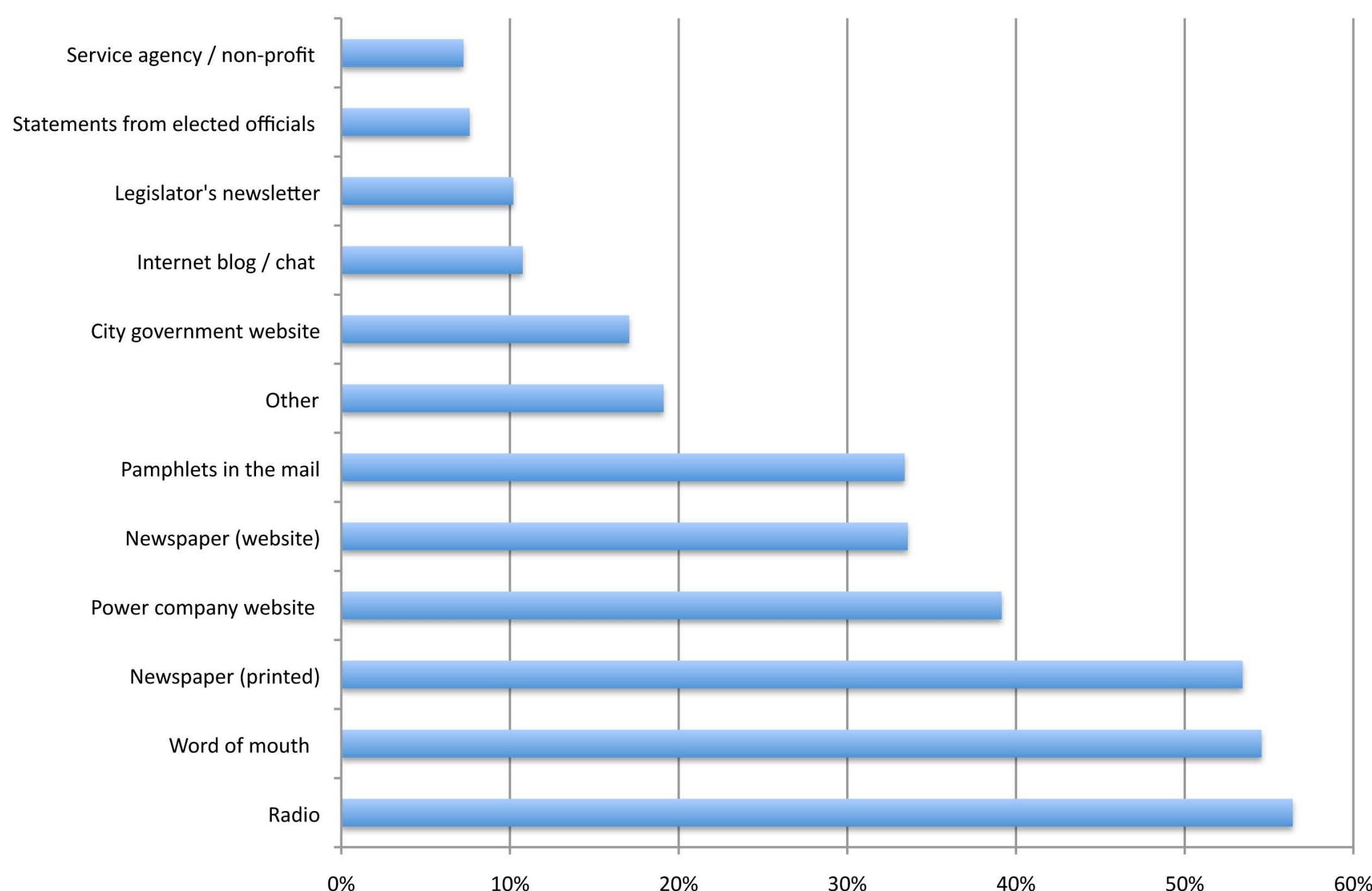


The airport—one the largest electricity users—saved by switching off runway lights when closed.

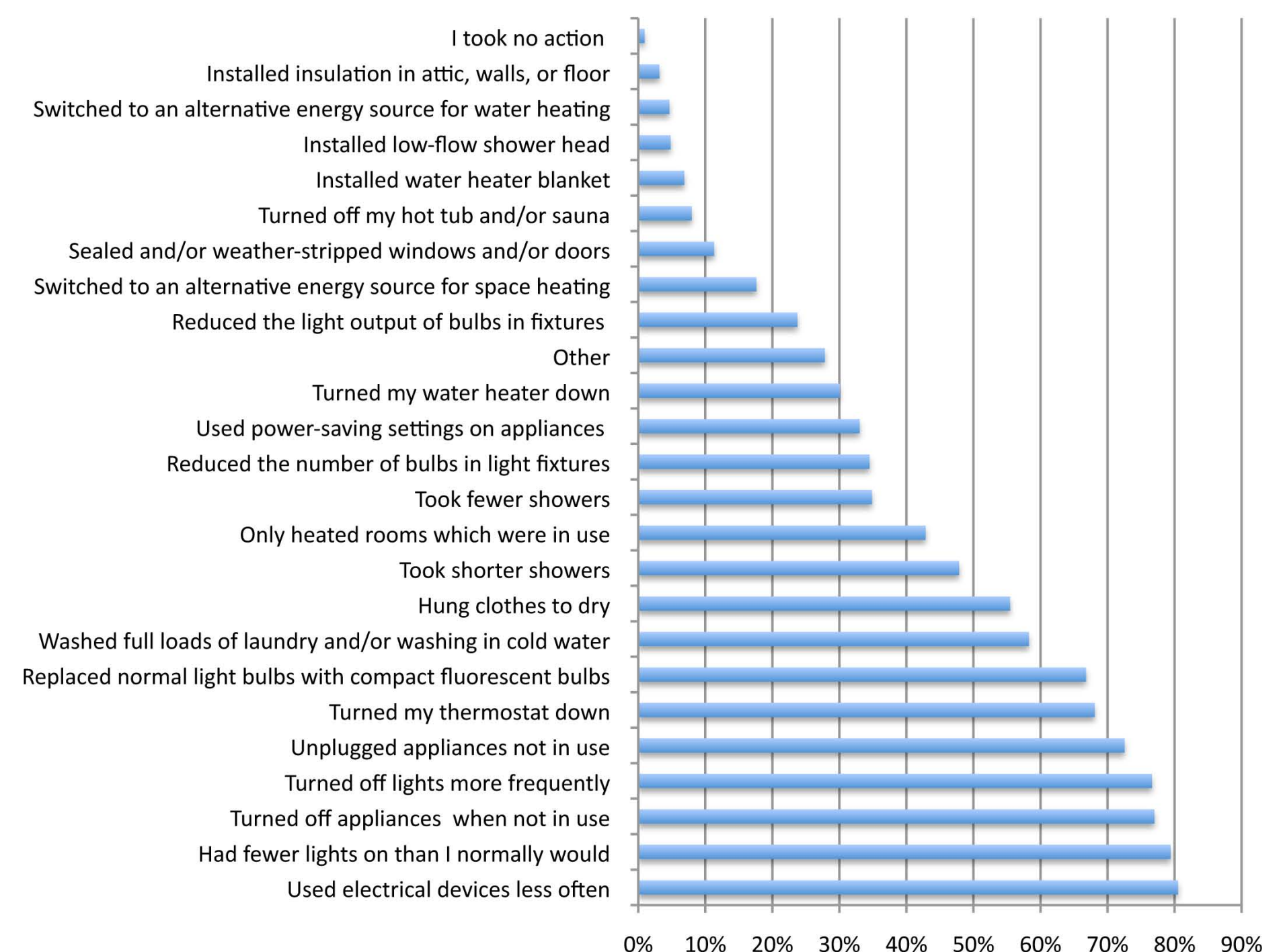
Conclusions

- Changes in behavior can quickly reduce energy use
- The price signal is important!
- A 15% savings persisted after the transmission line was fixed (and prices fell)
- Citizens responded more calmly when a second avalanche cut the transmission line (“been there, done that”)

Where did you get information regarding what you could do to reduce your energy use?



Which actions did you take?



About one year after the avalanche, Wayne Leighty at University of California, Davis, surveyed Juneau residents regarding energy conservation actions and views. Over 500 people—almost 0.5% of Juneau’s total population—responded. I used some of his results.