

*Sustainable Energy Benefits
For Nevada County
Ray Darby, P.E.
Mechanical Engineer*



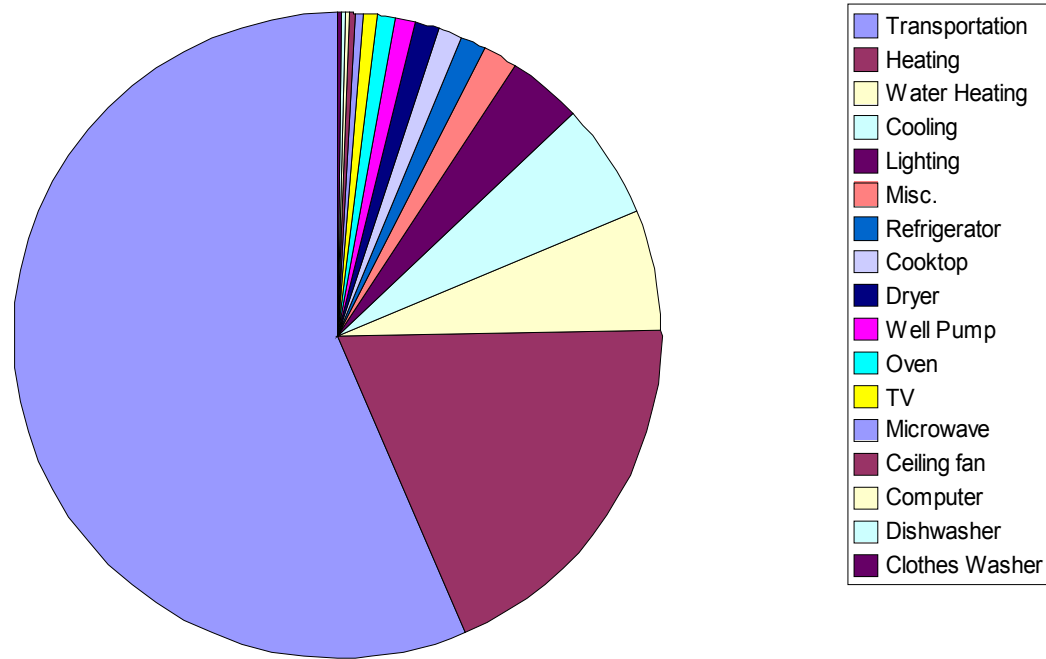
**Sustainable
Energy Group Inc.**

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Grass Valley, CA 95959
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Household Energy Including Transportation

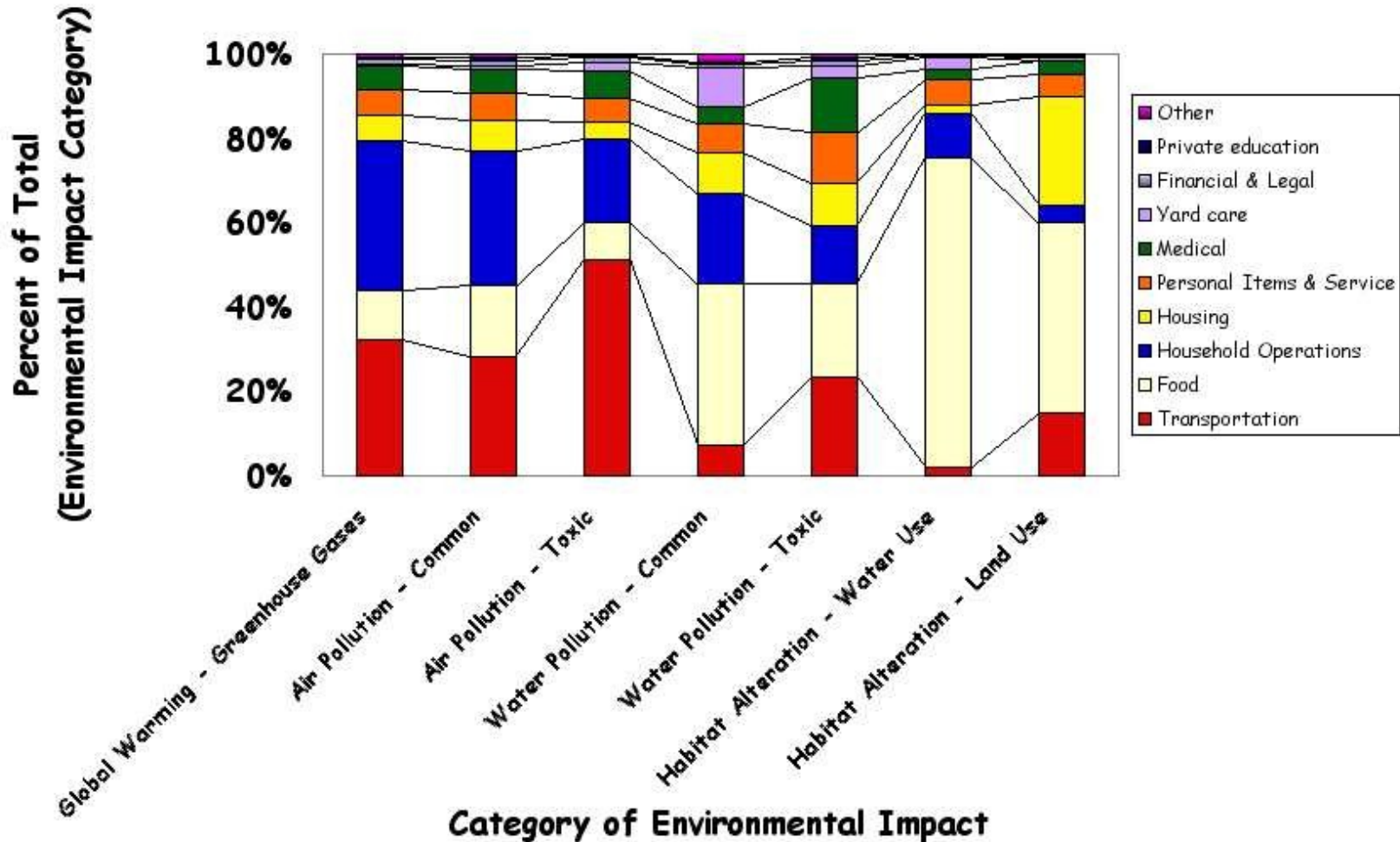
Household Energy Costs - Nevada County



Environmental Impact

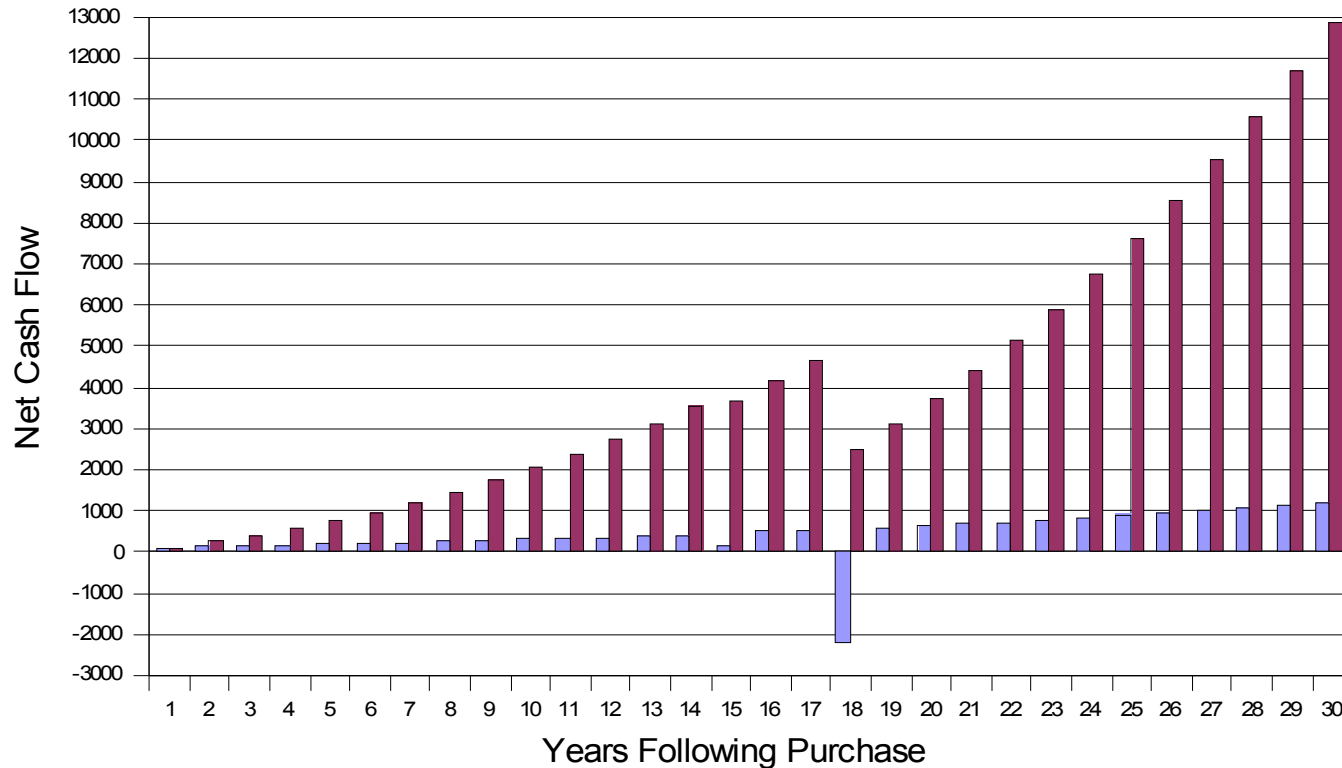
(By Category & Percent of Impact)

Household Environmental Impact - Overall

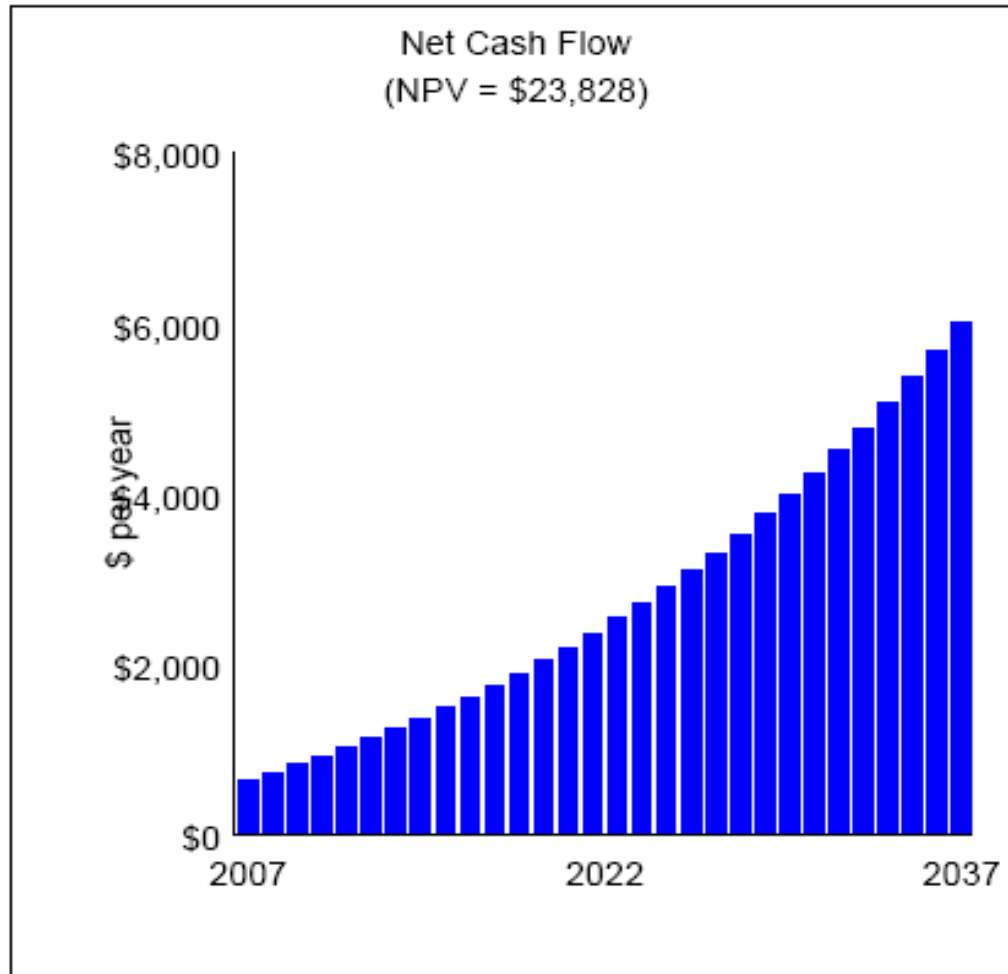


Solar Water Heating Economics

Net Cash Flow from Solar Water Heating



Solar Electric System Economics



Economic Development Benefits

- UC Berkeley Study - *“Renewable energy promotes U.S. job growth better than investment in fossil fuels”*
- "For too long, innovations in solar, wind, and biomass/waste technologies, green buildings, highly efficient vehicles, and construction practices that minimize waste have languished in the market despite impressive technical advances, cost reductions, and great potential that make these renewable energy technologies competitive with imported oil and gas supplies," Kammen said. "Investment in new renewable energy sources leads to roughly 10 times more jobs than a comparable investment in the fossil-fuel sector. This difference underscores the economic benefits of moving our economy and society from one of energy 'hunter gatherers' to one of 'energy farmers' and innovators."
- Comprehensive, coordinated energy policy works best, emphasizing not only renewable energy sources but also energy efficiency and sustainable transportation. These, it said, "yield far greater employment benefits than supporting one or two of these sectors separately."

References

- **Sustainable Energy Group Inc**
<http://www.SustainableEnergyGroup.com>
- **Household Energy - Including Transportation**
Based on 3000 sf, 1980's vintage home in Grass Valley; 2 cars, 15k miles/yr, 20 mpg, \$3/gal
- **Environmental Impact - By Category and Percent of Impact; Household Operations; Solutions**
<http://www.ucsusa.org/assets/documents/ucs/CG-Chapter-1.pdf>
- **Examples of Solar Water Heating & Solar Electric Economics**
Taken from customer proposals completed by Sustainable Energy Group Inc.
- **Economic Development Benefits**
http://www.eurekaalert.org/pub_releases/2004-04/uoc--rep041304.php