

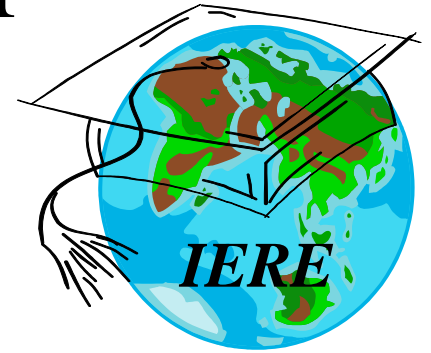
# *Energy Independent Communities* *Vashon-Maury Island*

Rita Schenck

*Institute for Environmental  
Research and Education*

*[www.iere.org](http://www.iere.org)*

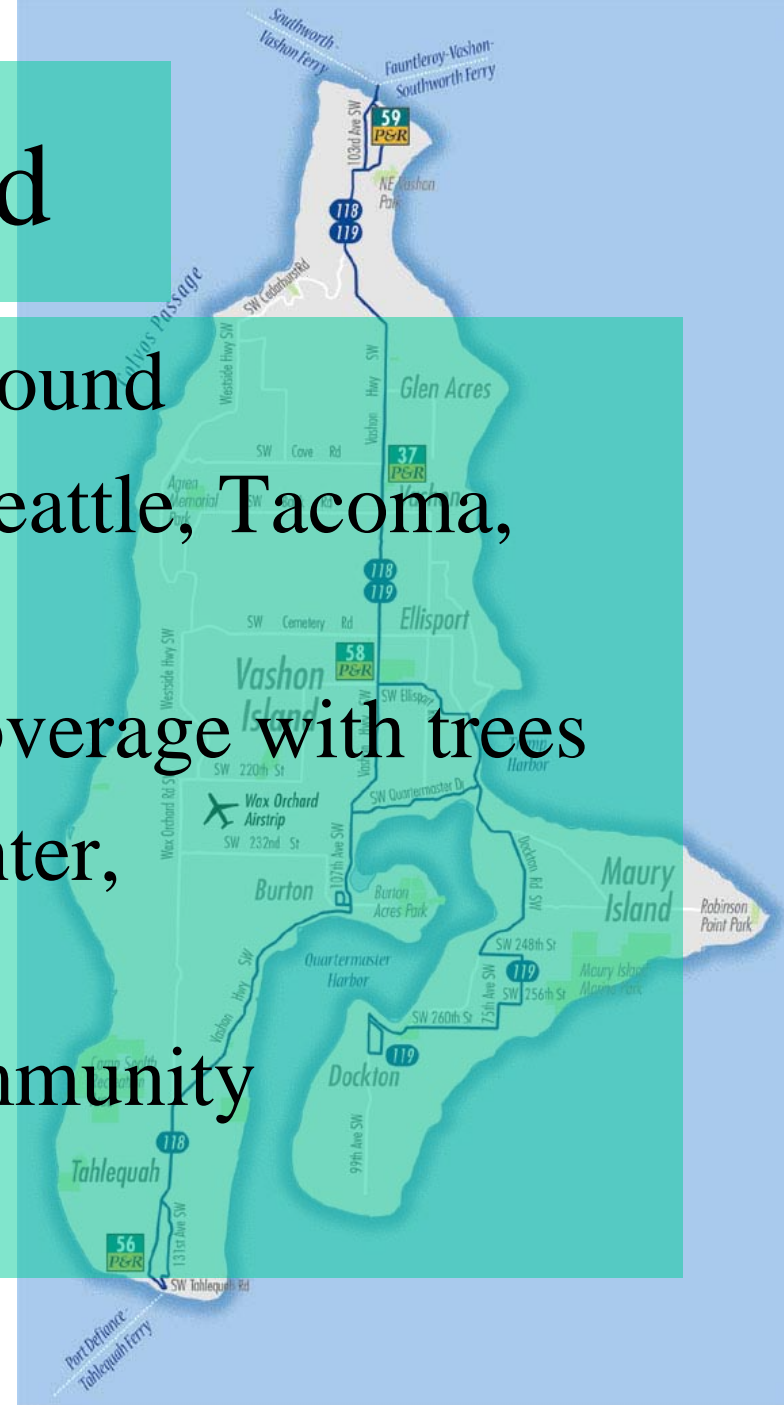
# Institute for Environmental Research and Education



- Environmental non-profit (501c3)
- Environmental Scientists and Economists
- Headquarters on Vashon Island
- ***Supports Fact-based Environmental Decision-Making***
- Houses the American Center for Life Cycle Assessment
- Much of our work is about measuring environmental performance and helping people understand its meaning
- Diverse funding base (private, public, business)
- ***Strongly believes that Business must drive environmental improvement***

# Vashon-Maury Island

- Island in Central Puget Sound
- 15-minute ferry ride to Seattle, Tacoma, Olympic Peninsula
- 37 Square Miles; 67% coverage with trees
- 10,000 inhabitants in winter, 12,000 in summer
- Active sustainability community
- Very active politically

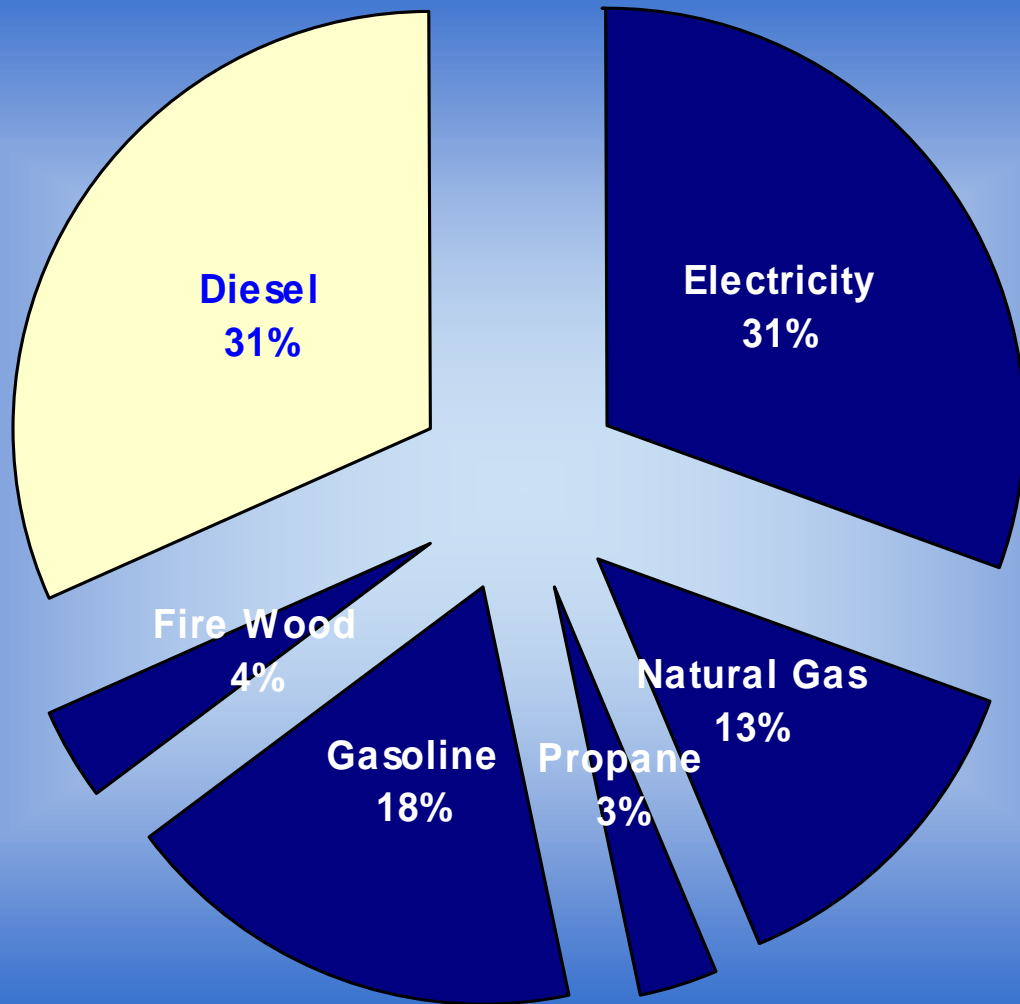


# Imagine the Island Sustainable

- We Could
  - Make all our own energy
  - Export as much food/agricultural product as we import
  - Have living wage jobs for all
  - Treat all water and waste here—to a level that protects the environment
  - Preserve all our ecosystems in a healthy and functioning manner
- We could be a model for other communities all over the world
- We could be a center for sustainability training



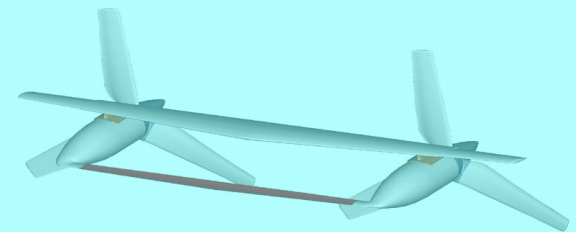
# Vashon Energy Use, 2001, 35 MW



# Renewable Energy Potential

- Solar Power: ~100 MW
- Wind Power: 6-12 MW
- Tidal Power: 1 to 6 MW
- Biomass Power: 1 to 3 MW

*Total Renewable Energy Potential  
is Much Larger than  
Total Energy Need*



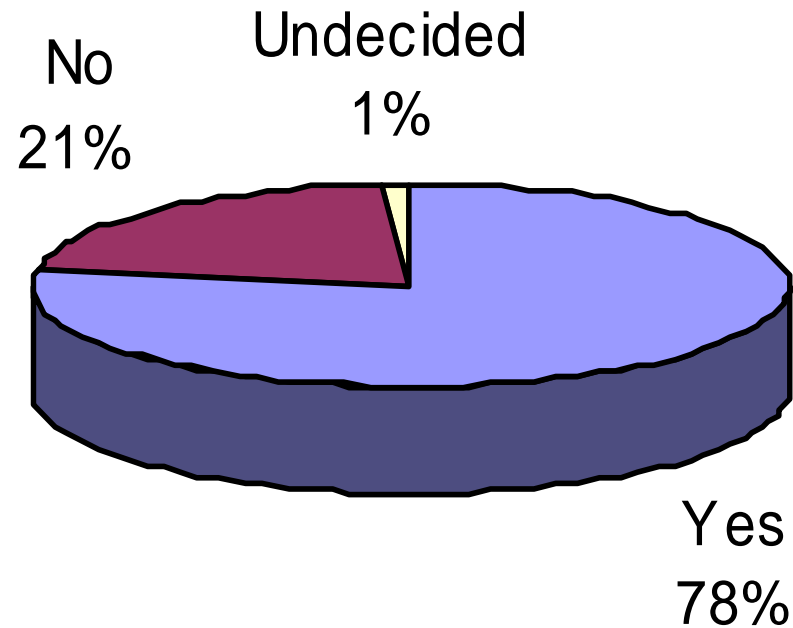
# Public Outreach and Decision-making

- People Make the Decisions
- Use the results of studies
- Focus Groups
- Island-wide mailings
- Internet discussions
- Public Meetings

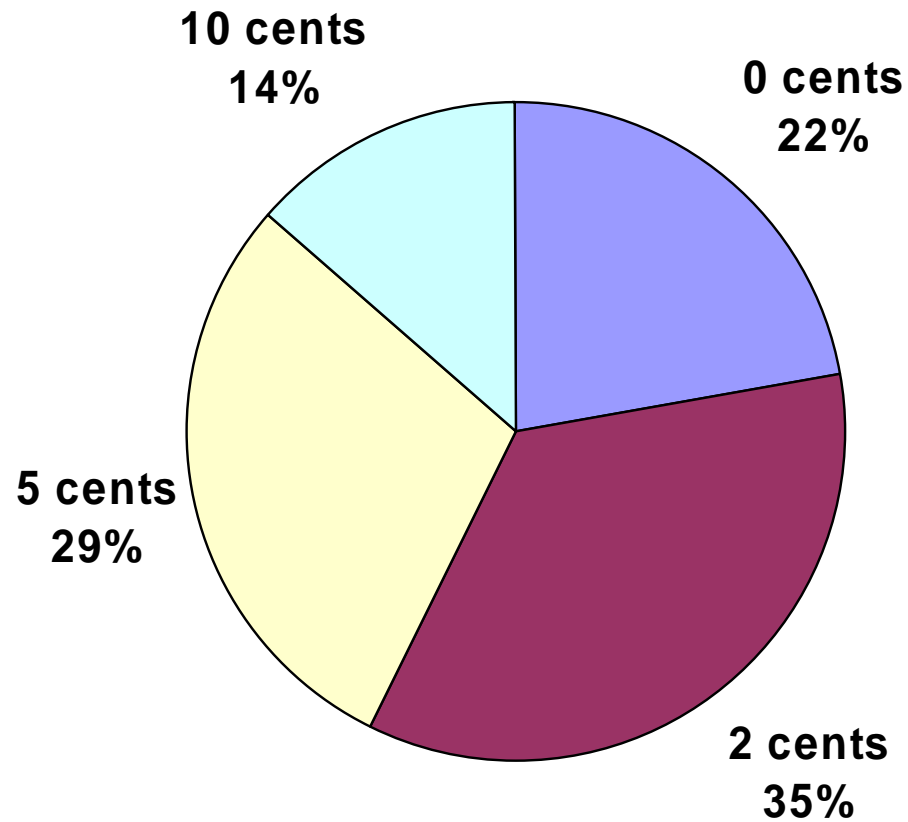


*Outcome is a business plan  
driven by the people*

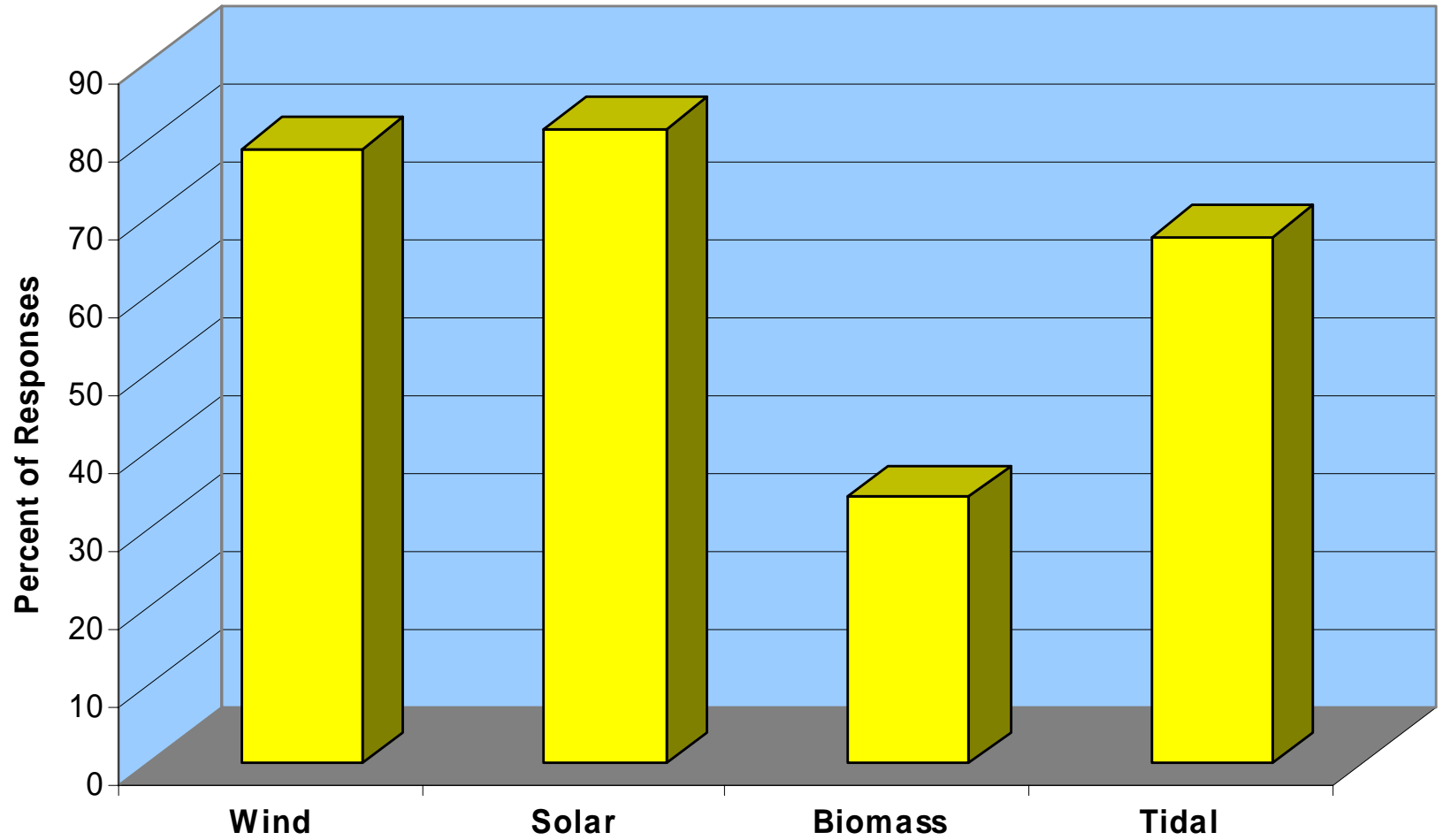
# Should the Island Pursue Energy Independence?



**How Much More Are You Willing to Pay for Local Renewable  
Energy? (cents per kilowatt hour)**



## What Kind of Renewable Energy is OK?



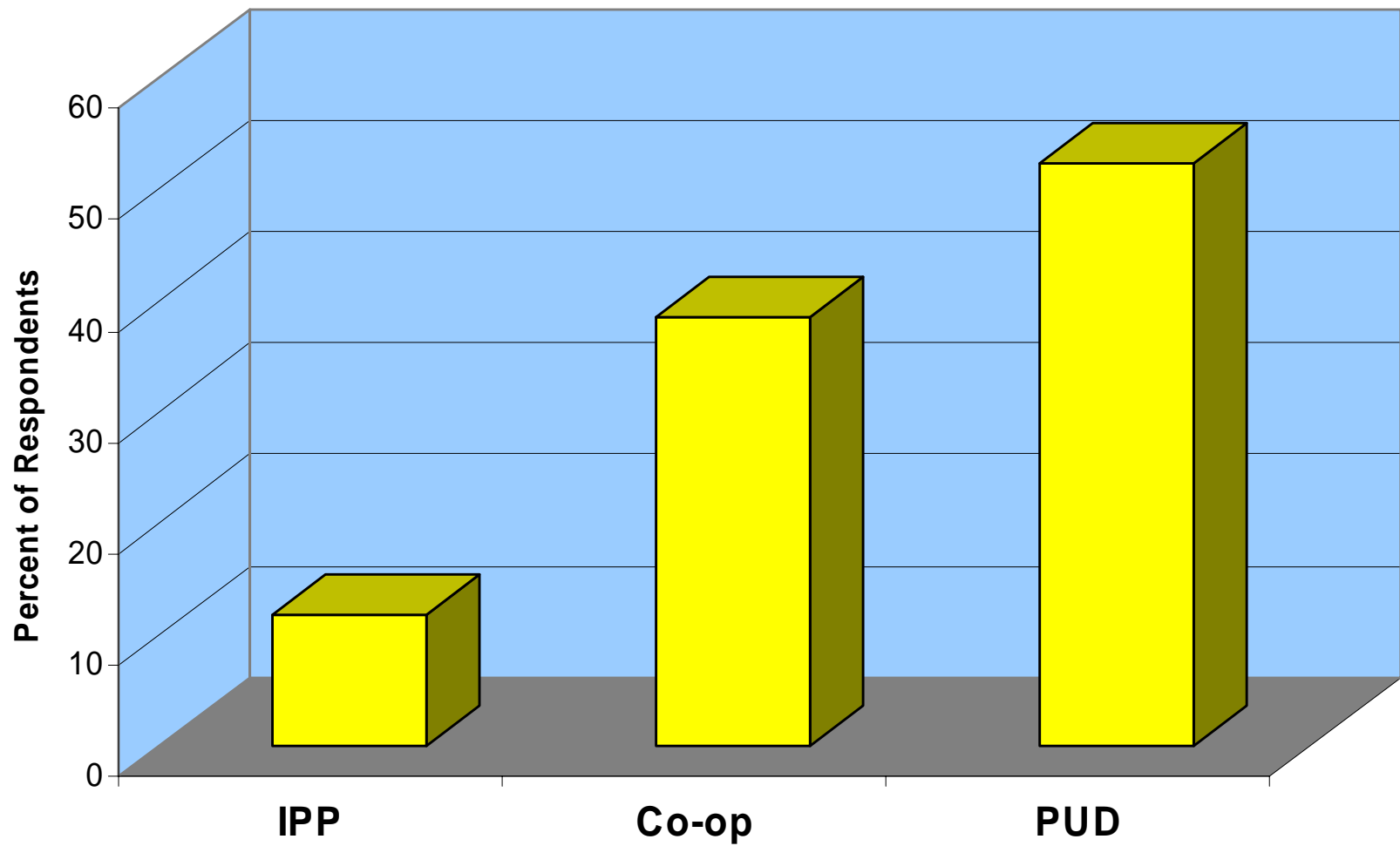
# Survey Comments are Important

<b>Why Not Be Energy Independent?</b>	
Competence (IERE's lack)	13
Cost too high	9
Island size too low	9
Nuclear better	3
Hydro already renewable	2
Market should drive	2
Incinerator better	1
Transport prohibitive	1

# Positive comments, too

<b>Energy Independence is Good, and</b>	
I want more info	22
<b>Cost may be prohibitive</b>	<b>14</b>
Conservation is important	4
Choice should be offered	3
Biodiesel a good solution	2
Ownership is important	2
Policy is important	1

## Who Should Own Renewable Energy Generation?



# PUD Outcome

- Vashon-Maury Island Community Council has just requested assistance to study the feasibility of a PUD

# New Engineering & Economic Study

- Study the island at three scales
  - Single building
  - Neighborhood
  - Whole Island
- Evaluate appropriate technology (conservation & generation)
  - Cost projections over next decade
  - Comparison with cost projections for fossil technology



# Outcomes of the Study

- Technology Assessment: when do technologies become economically feasible? Can we foresee energy independence?
- Policy paper: what can the government do to support emerging technologies?
- Business assessment: what are the businesses that would benefit from renewables & conservation and how?



# Moving Forward: Context

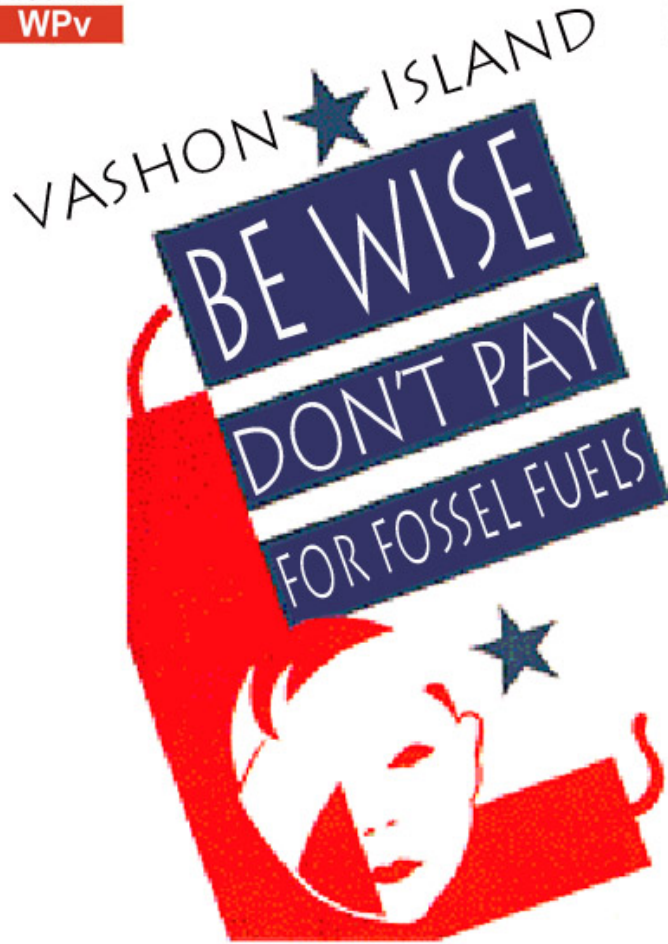




BEALL ARCHIVE 2003

Circa 1968





SUSTAINABLE ENERGY  
FOR OUR NEXT GENERATION



Institute for Environmental Research and Education

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