

# ENERGY & OMAHA: CITIZEN AND STAKEHOLDER ATTITUDES

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City of Omaha

# Office of Sustainable Development

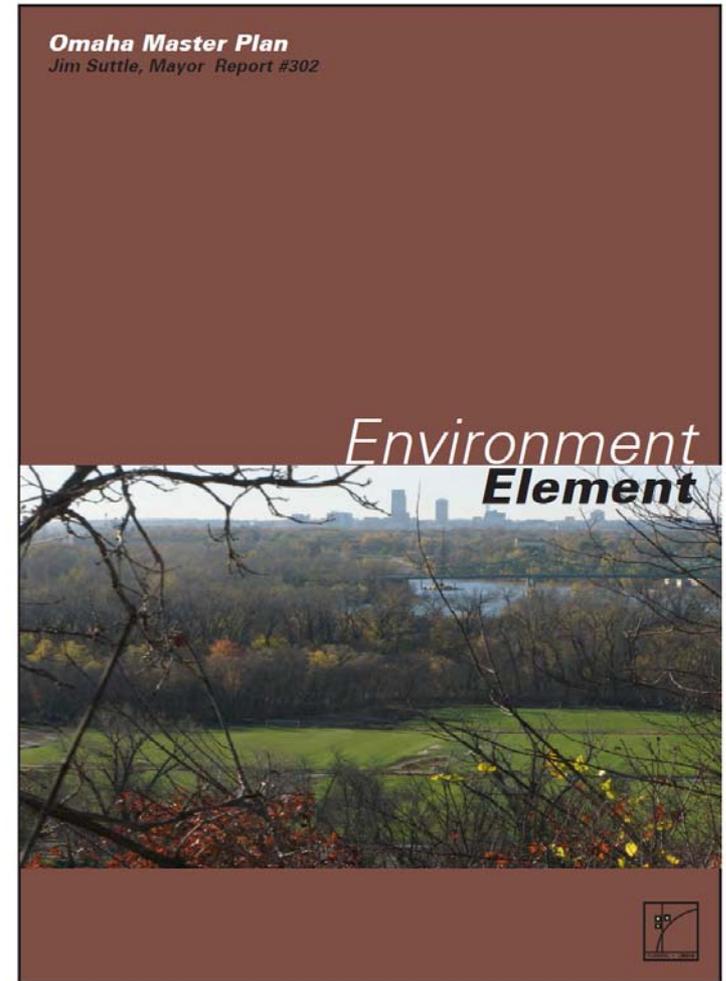


[www.cityofomaha.org/ECOmaha](http://www.cityofomaha.org/ECOmaha)

- Formed in 2009
- Part of the Planning Department
- Coordination of Energy Grants and Environment Element implementation
- Working across all departments and with the Mayor and his staff to catalyze sustainability within the municipality & community

# Environment Element

- 5 areas:
  - Natural Environment
  - Urban Form and Transportation
  - Building Design and Construction
  - Resource Conservation
  - Community Health



**Passed City Council December 17, 2010**

[www.cityofomaha.org/ecomaha/images/stories/pdfs/EnvironmentElement2010.pdf](http://www.cityofomaha.org/ecomaha/images/stories/pdfs/EnvironmentElement2010.pdf)



# Omaha's \$4.3M EECBG: Energy Efficiency and Conservation Block Grant



# Companion Documents



**CITY OF OMAHA**  
2009 Energy Profile

December 2011

Prepared for the City of Omaha by  




**CITY OF OMAHA**  
2009 Emissions Inventory Report

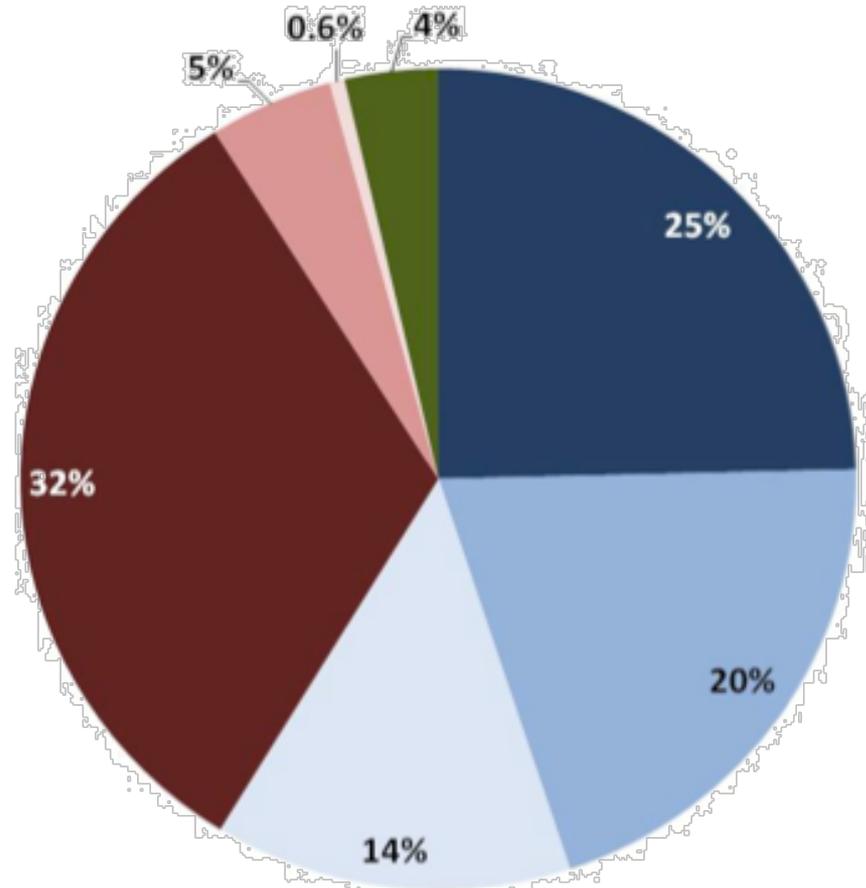
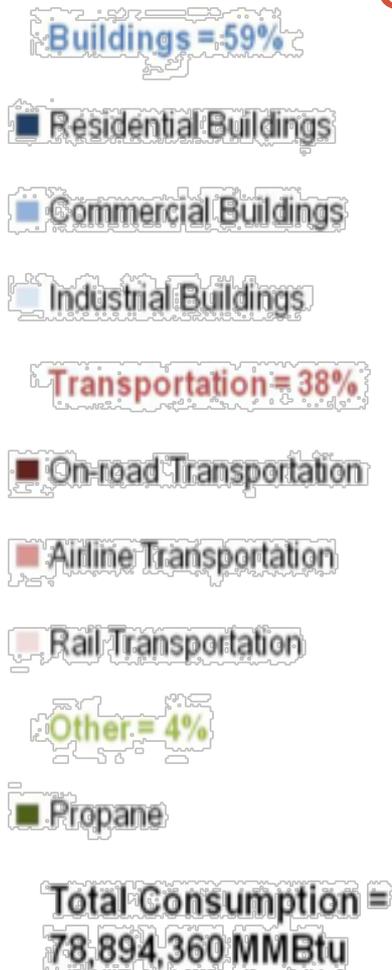
December 2011

Prepared for the City of Omaha by  


# CITY OF OMAHA

## COMPREHENSIVE ENERGY MANAGEMENT PLAN

### Community Energy Profile



Base data year: 2009

# OMAHA ENERGY SURVEY

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Citizen Attitudes regarding Energy

# Omaha Energy Survey

- Statistically significant phone survey conducted by Public Opinion Strategies
- Conducted February 16 – 17, 2011
- Sample:
  - 500 City of Omaha residents
  - Distributed proportionally by council district
  - Demographically representative
- Sampling error of +/- 4.38%

# In general, Omaha residents hold positive impressions of wind and solar power

## Feeling Toward Energy Sources

*(on a scale from 1/Very Negative to 10/Very Positive)*

Energy Source	% 8-10	Mean
Wind power	62%	7.6
Solar power	61%	7.7
Natural gas	46%	7.1
Hydro power	43%	7.1
Geothermal or ground source heat pumps	39%	6.9
Waste to energy conversion	39%	6.9
Nuclear	31%	6.0
Coal	15%	4.8

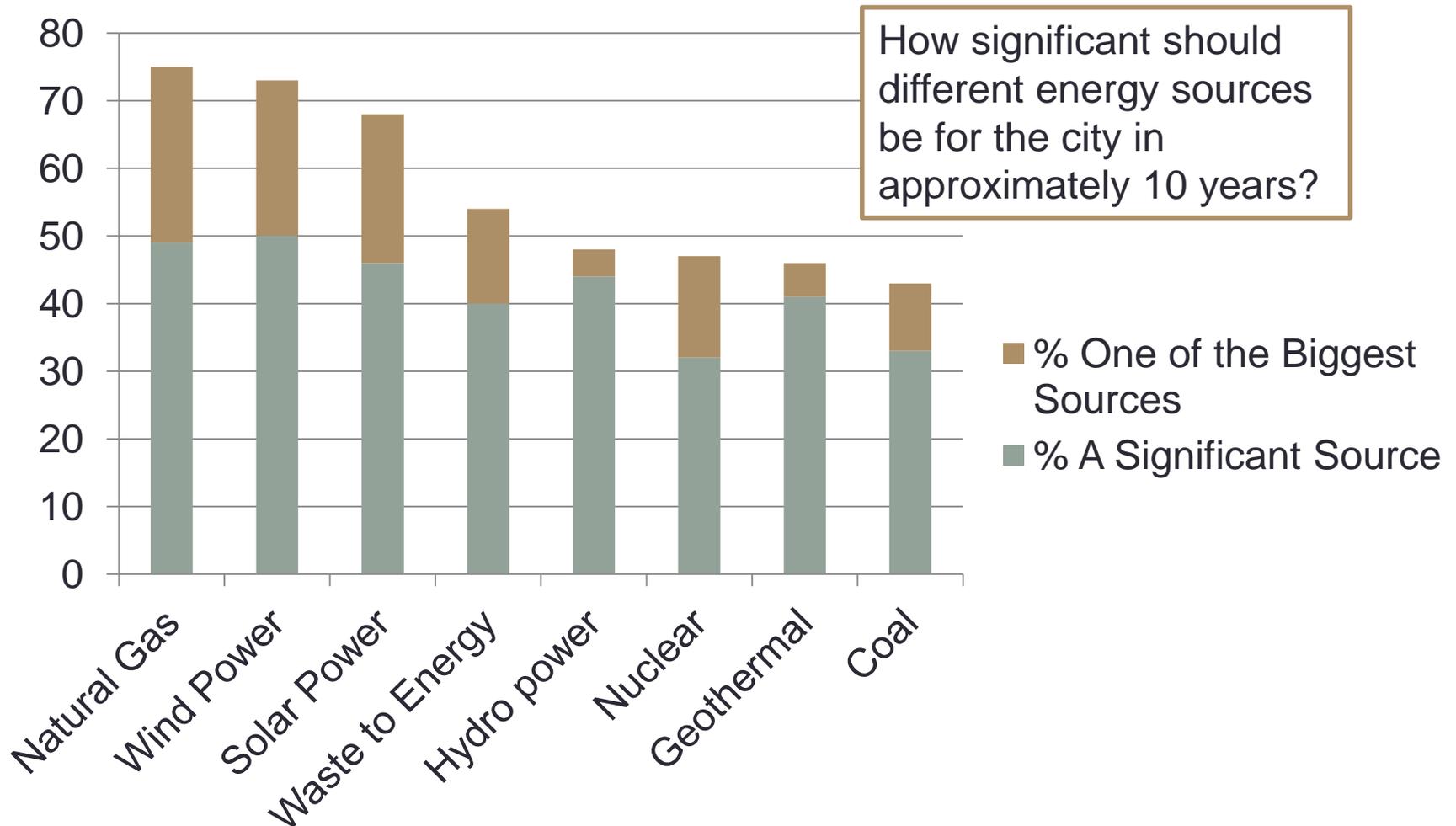
# Strong relationship between education level and positive impressions of several renewable sources

## Feeling Toward Energy Sources by Education Level

(% 8 – 10 only)

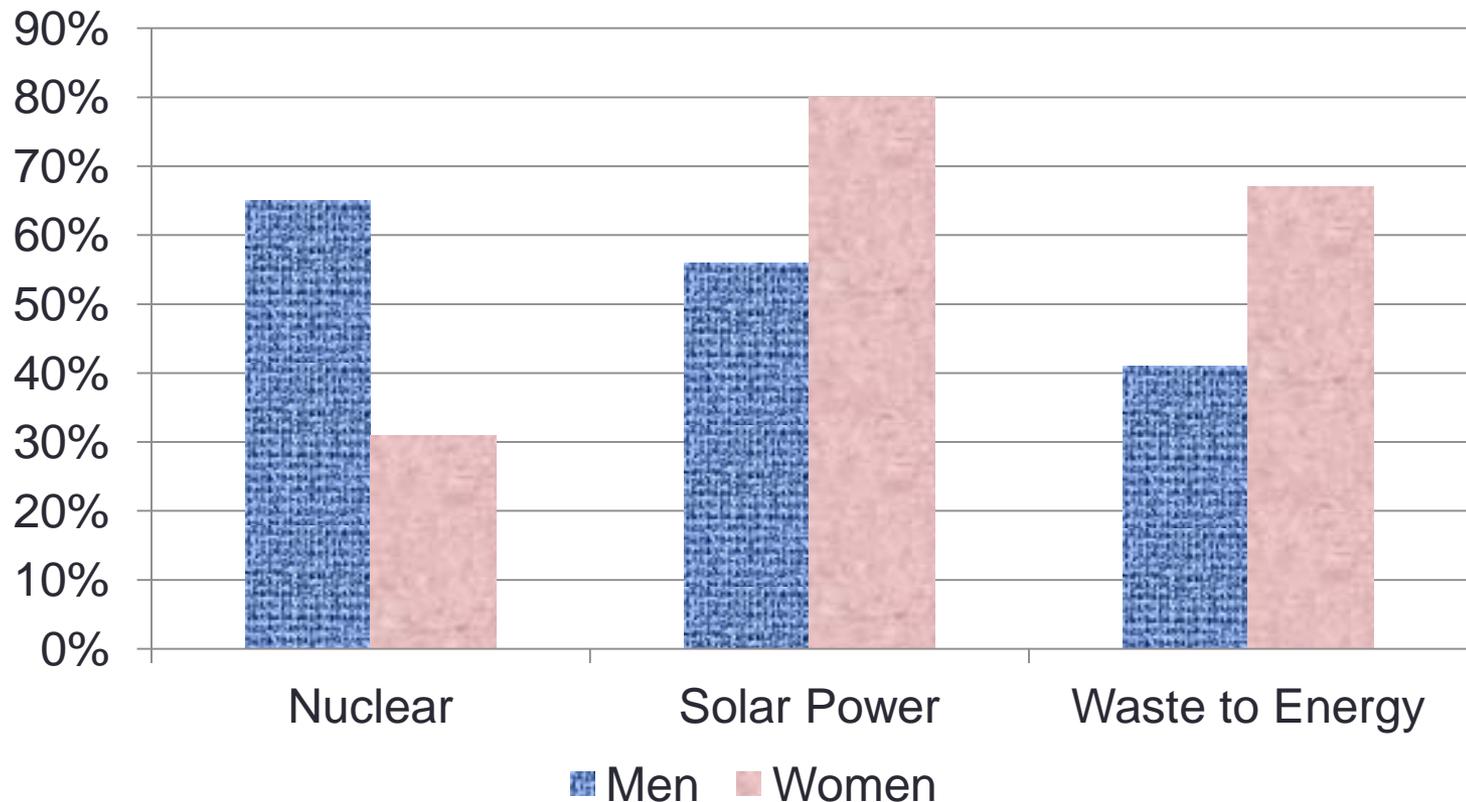
Energy Source	High School or less	Some College/Tech	College Grad/Post-Grad
Wind power	59%	60%	64%
Solar power	50%	64%	63%
Natural gas	50%	53%	41%
Hydro power	32%	39%	47%
Geothermal or ground source heat pumps	33%	36%	41%
Waste to energy conversion	40%	40%	39%
Nuclear	21%	30%	34%
Coal	16%	12%	15%

# Majority feel Natural Gas, Wind Power, and Solar Power are key our future...

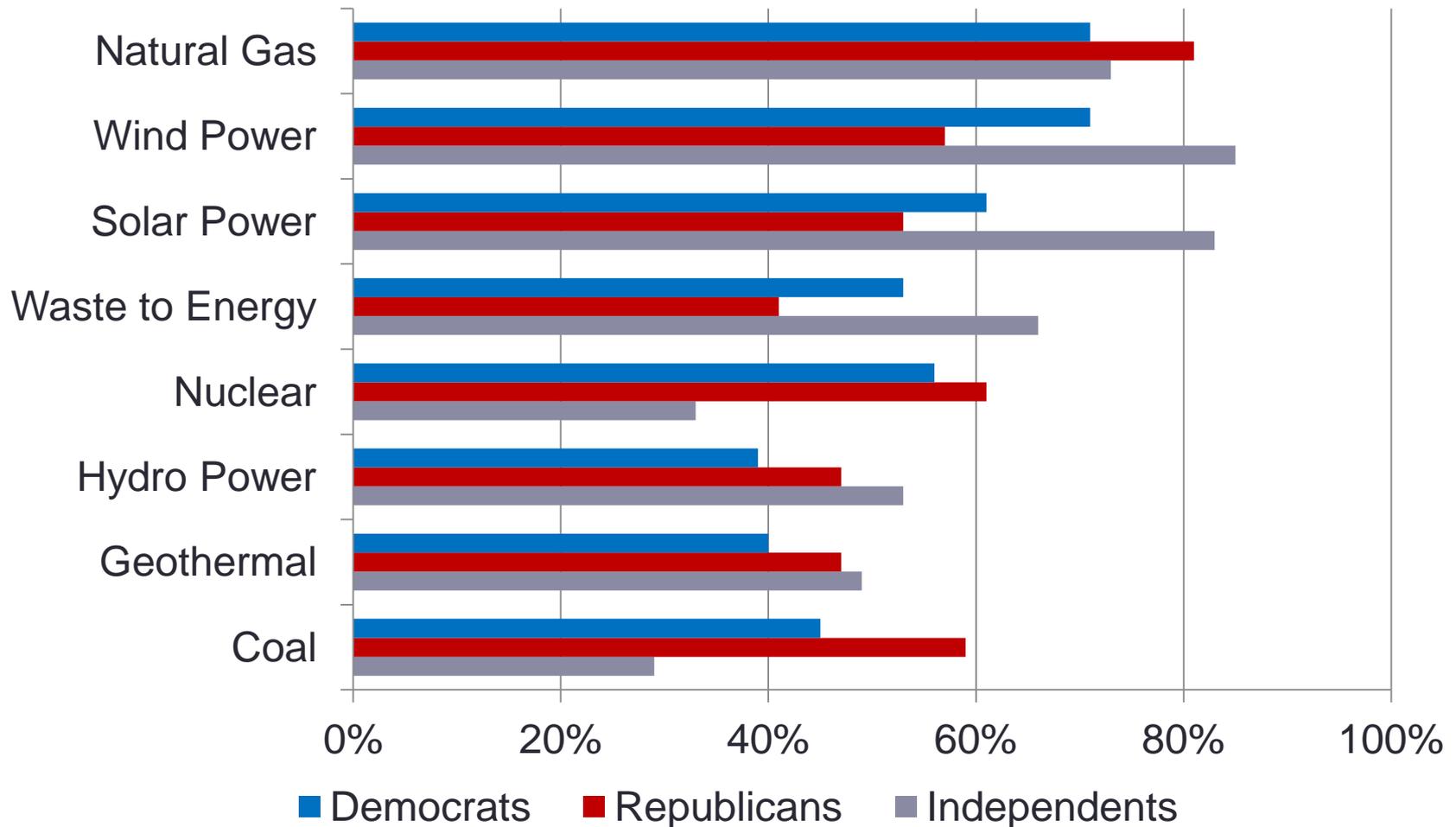


# Distinctions in the question of future energy sources...

## The Gender Gap



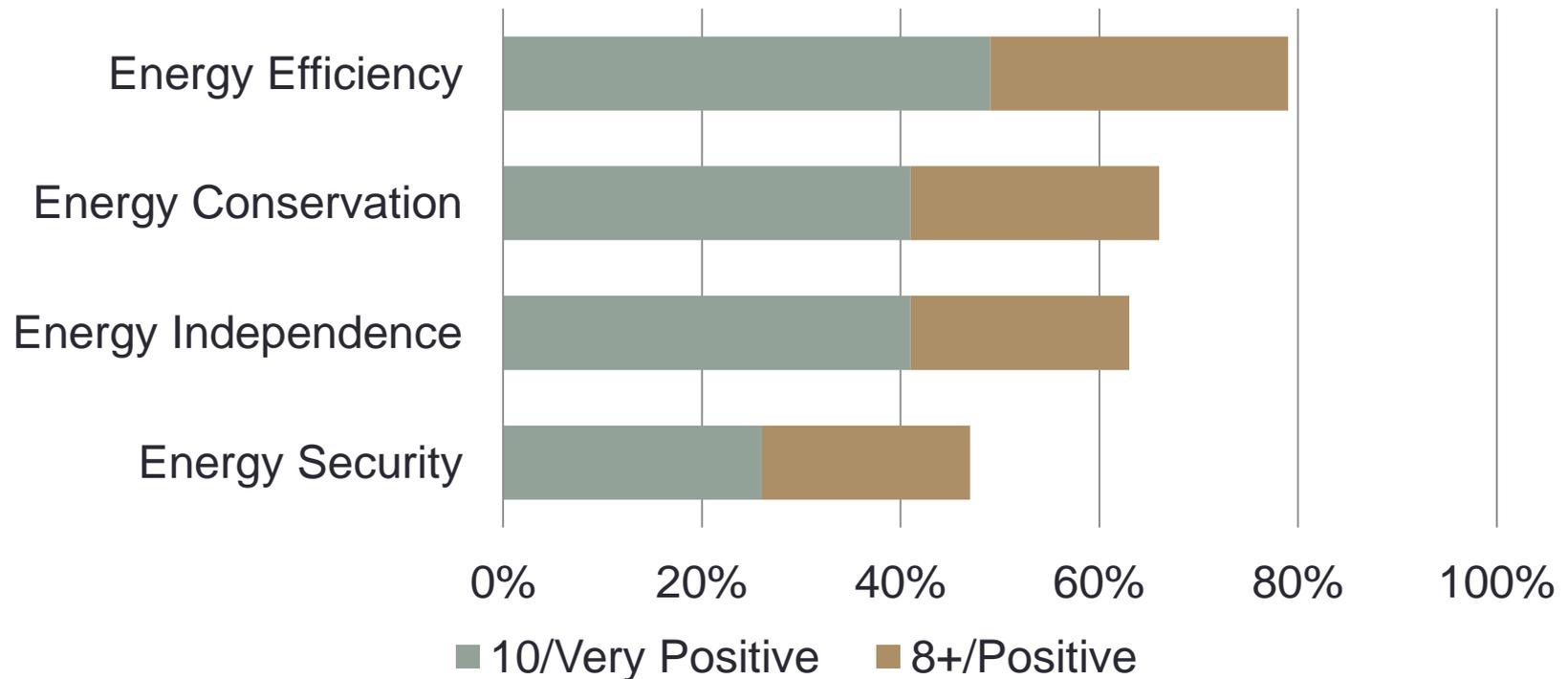
# Distinctions in the question of future energy sources... The Political Gap



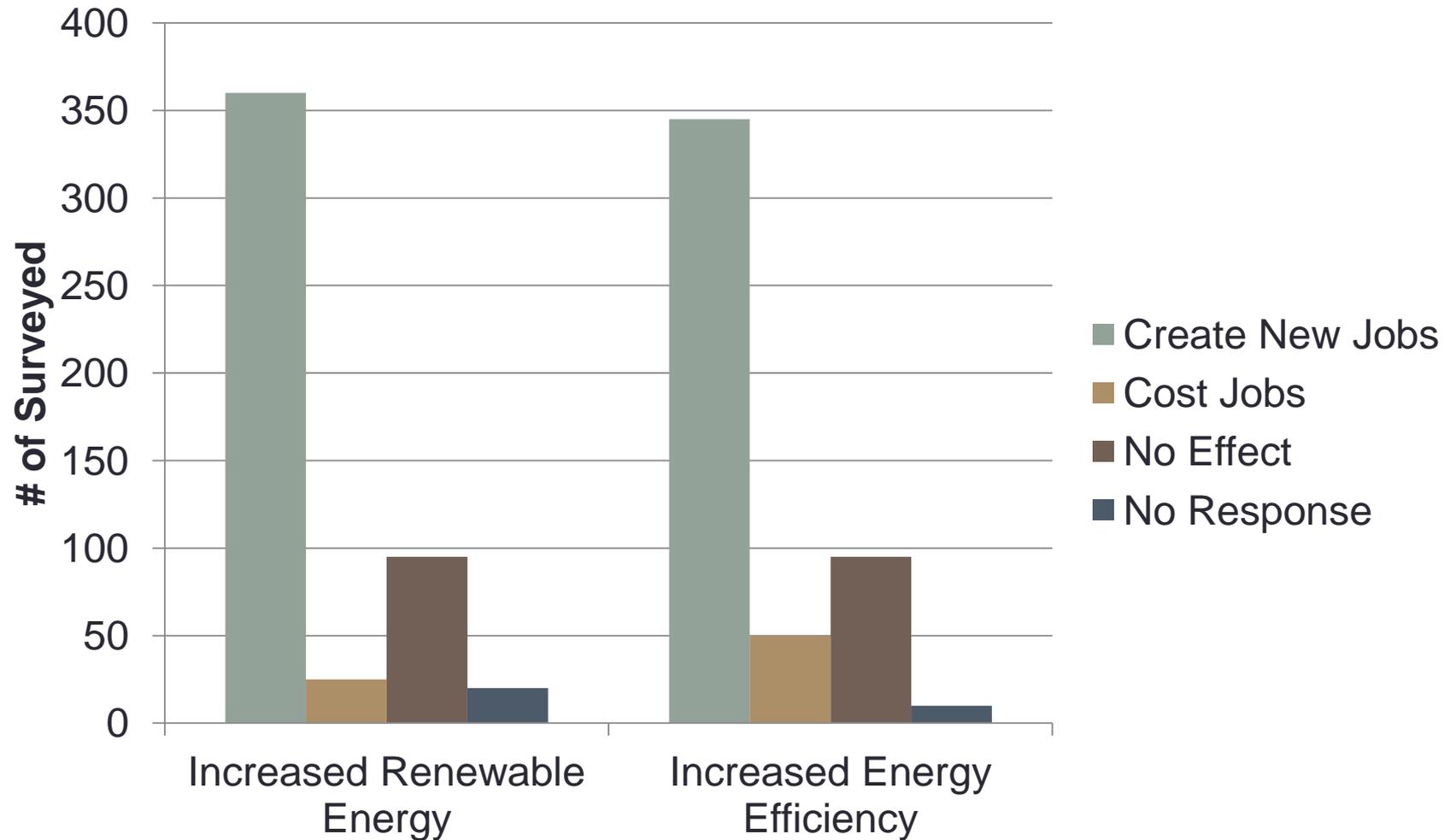
# Key Terms

## Feeling toward Energy Terms

### Favorable feelings toward Energy Terms



# New Job Growth Potential



# Attitudes toward Solutions

Proposals	% Total Top/ High Priority	% Medium Priority	% Low/Not a Priority
Require new developments to protect existing mature trees & plant new ones	63%	26%	11%
Provide incentives for developers to protect existing mature trees and plant new ones	59%	30%	10%
Provide incentives for developers and builders to incorporate energy efficiency and renewables in a development	57%	31%	11%
Require all new subdivisions to incorporate a minimum number of energy efficiency or renewable energy features in building	54%	29%	17%
Invest in alternative transportation options	45%	35%	19%
Promote development where housing, businesses, and shopping are in close proximity	31%	42%	26%
Reduce the number of car lanes to create wider sidewalks and provide bike lanes	28%	39%	33%
Modify city zoning code to require more compact development	19%	39%	41%

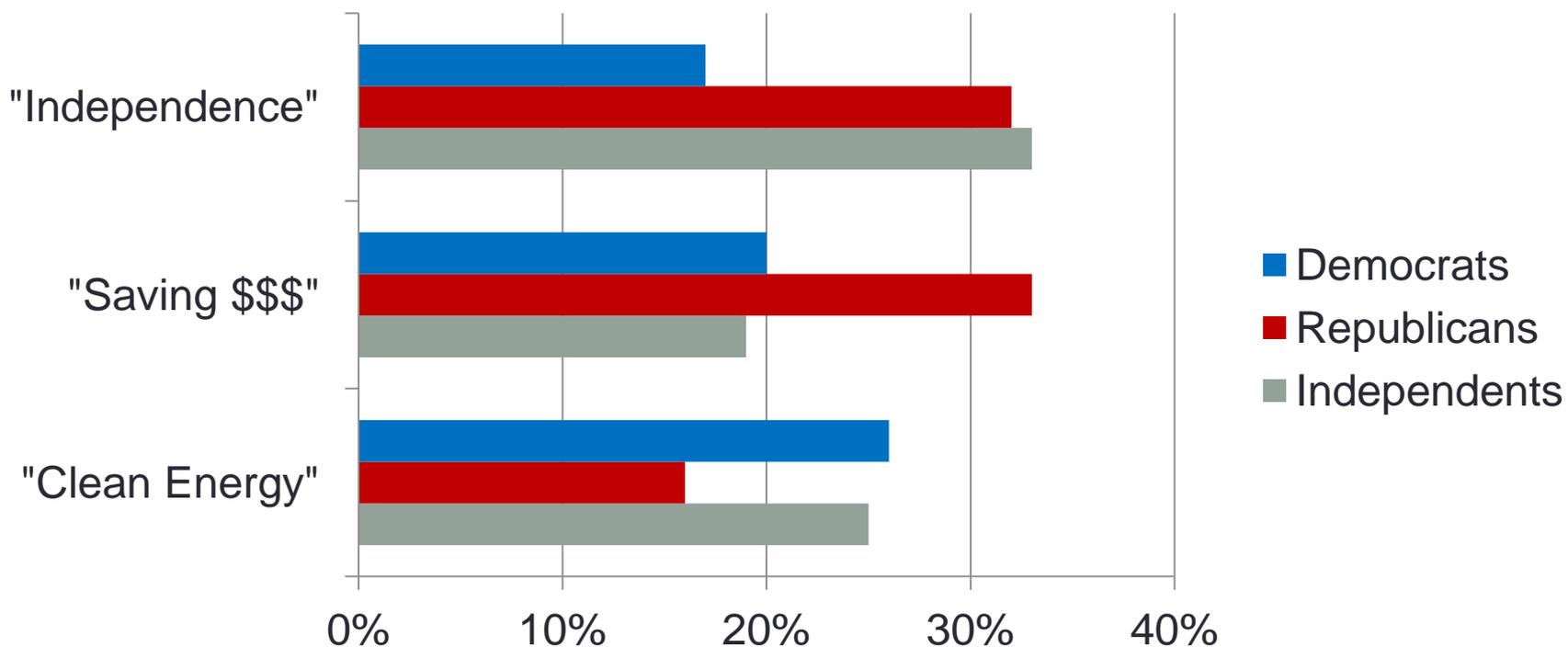
# Youthful Attitudes toward Solutions

Proposals	% Total Top/High Priority	% Total Top/High Priority for Young People	Difference
Require new developments to protect existing mature trees & plant new ones	63%	73%	+10
Provide incentives for developers and builders to incorporate energy efficiency and renewables in a development	57%	62%	+5
Require all new subdivisions to incorporate a minimum number of energy efficiency or renewable energy features in building	54%	66%	+12
Invest in alternative transportation options	45%	66%	+21
Reduce the number of car lanes to create wider sidewalks and provide bike lanes	28%	36%	+8

# Why support Energy Efficiency and Renewable Energy?

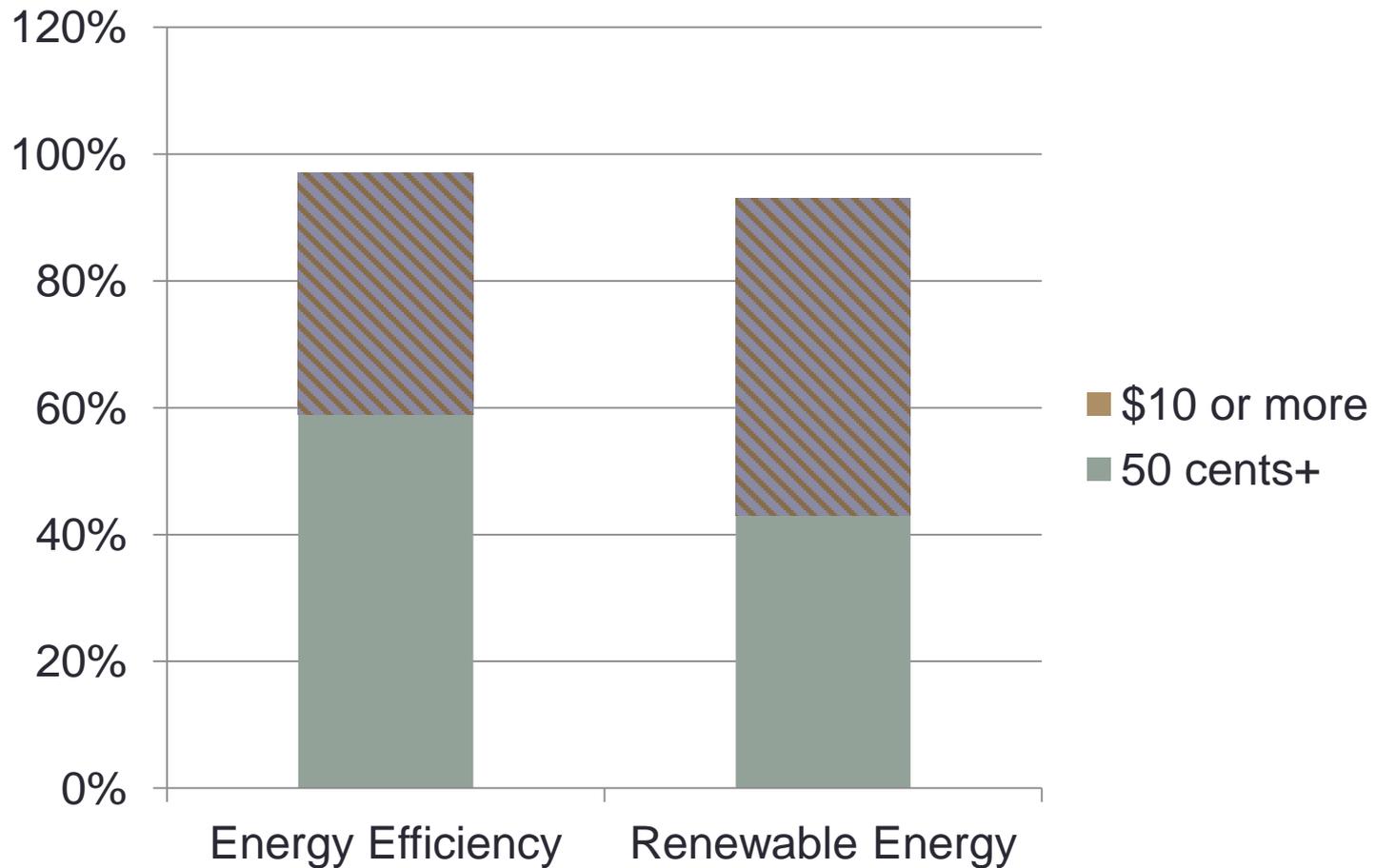
To have a more reliable, independent energy future	26%
To save residents money in the long term by becoming more energy efficient	24%
To increase our use of cleaner energy sources like wind and solar power	22%
To reduce the use of dirtier energy sources like coal and oil	15%
To reduce health problems from poor air quality	7%

# Support EE/RE distinctions

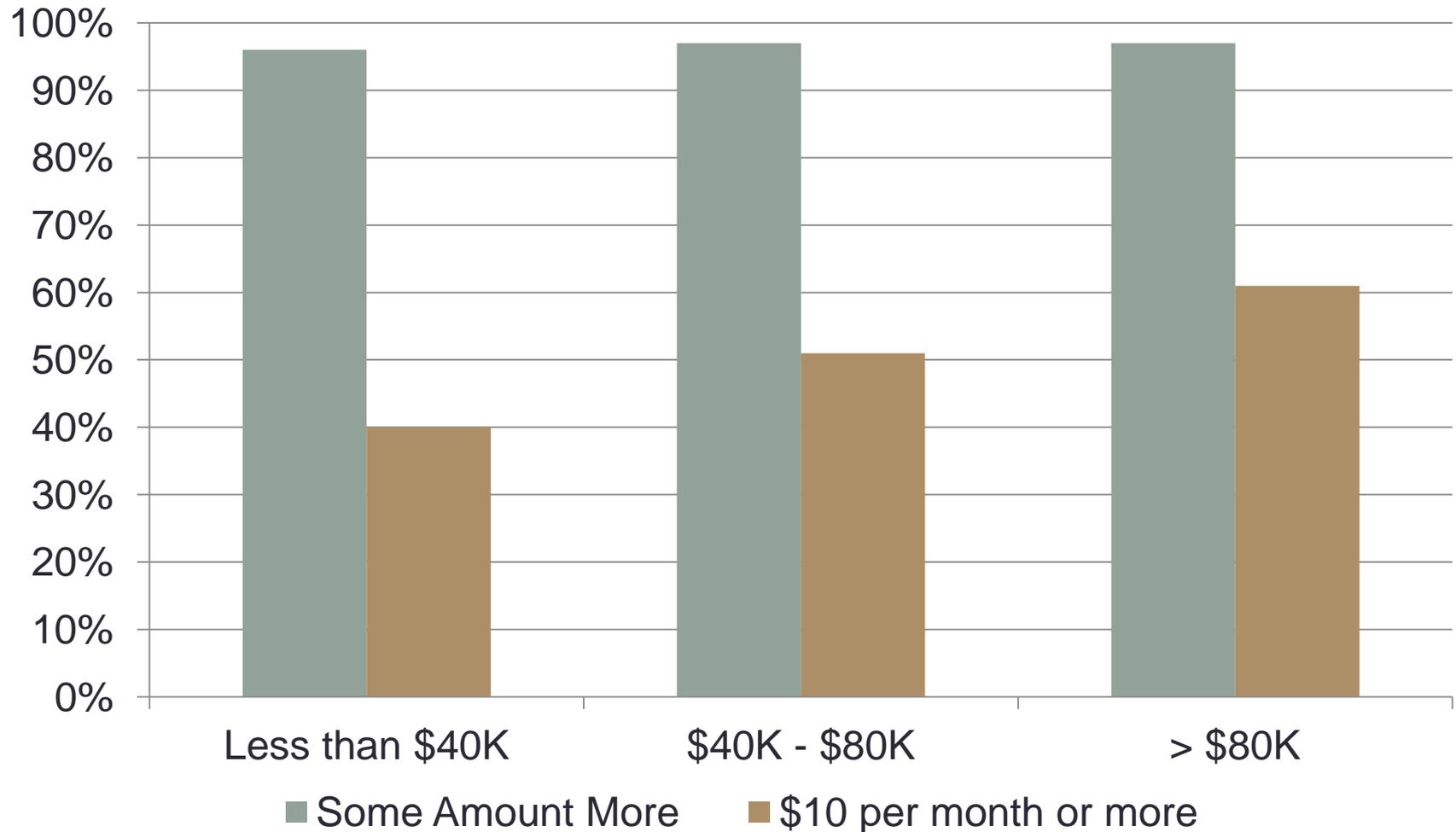


“Saving \$\$\$” strongly preferred among seniors (30%) and residents with incomes under \$40,000 per year (25%)

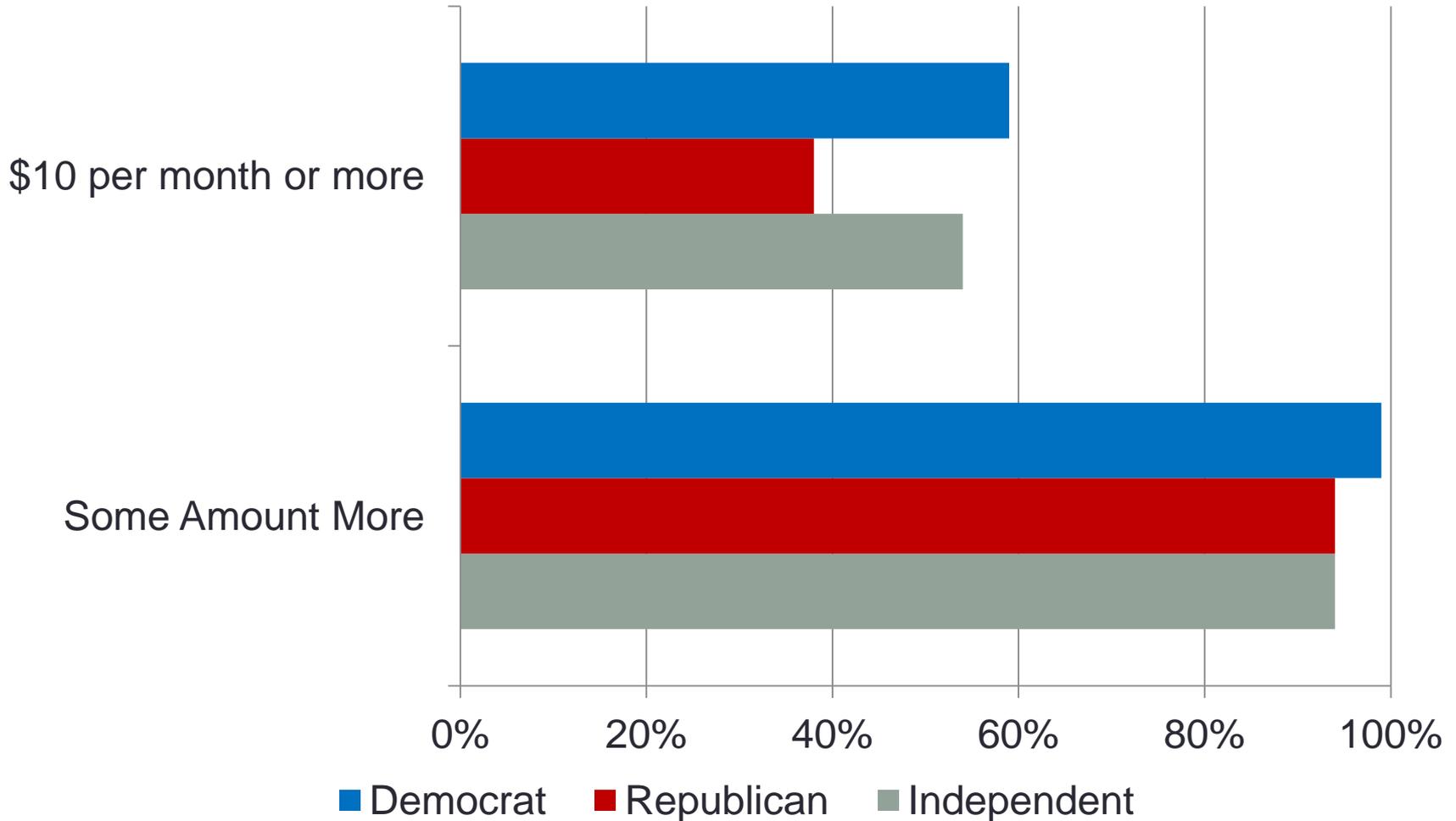
# Willingness to Pay



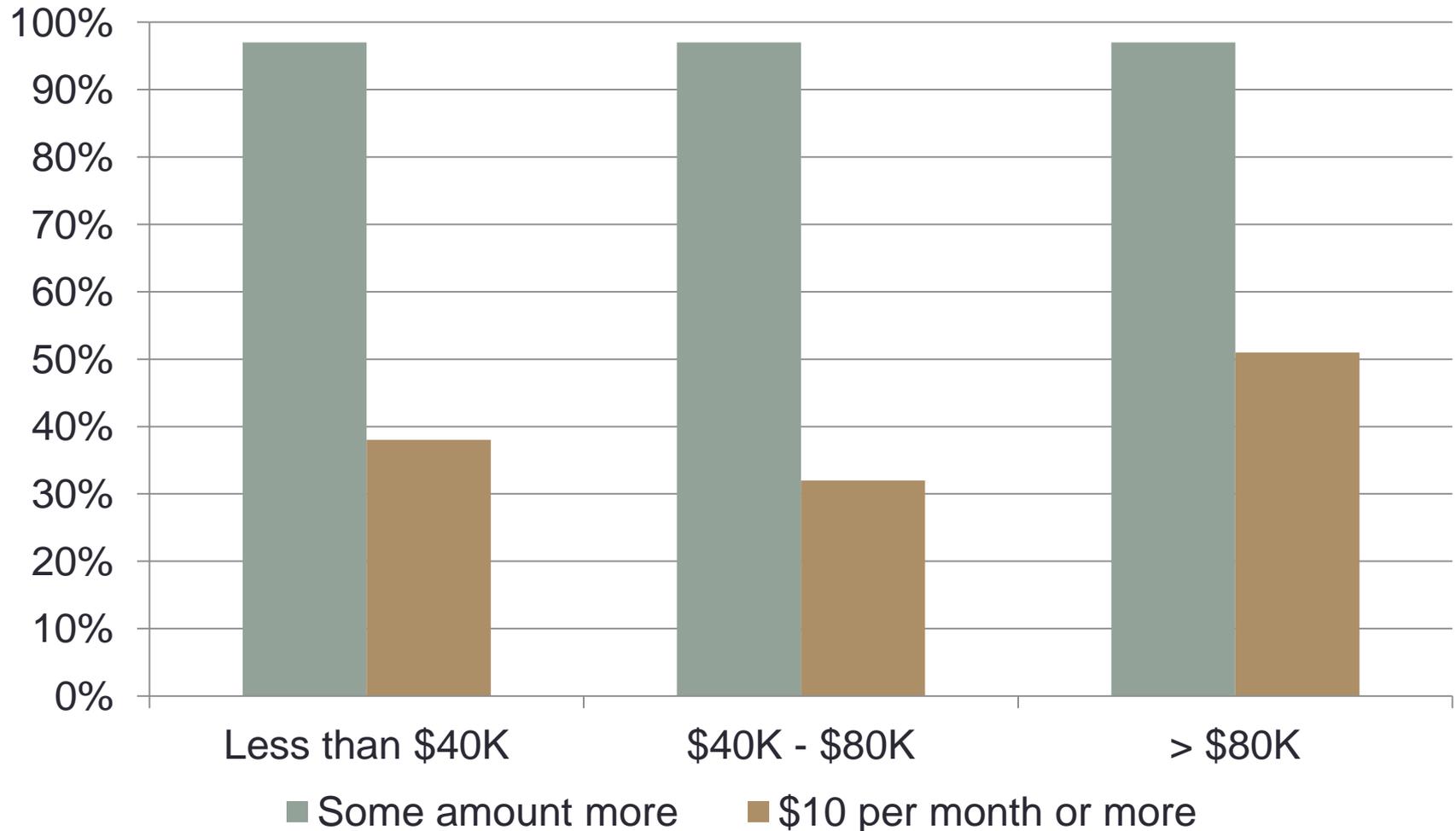
# Willingness to Pay: Renewable Energy and Annual Income



# Willingness to Pay: Renewable Energy and Politics



# Willingness to Pay: Energy Efficiency and Annual Income



# Summary Survey Results

- Preference for Increasing Energy Efficiency and Renewables
- More positive impressions of solar and wind
- Looking 10 years forward, significant sources of energy should be natural gas, wind, and solar
- Broad agreement that EE & RE will create jobs
- More than 9-in-10 willing to pay higher energy prices per month to meet energy needs through renewables

# REVIEW OF OMAHA CODES

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Zoning and Building Code Review

Diagnostic Report and Recommendations

August 2011

Prepared by Clarion Associates, in association with Brendle Group  
and the Development Center for Appropriate Technology



## City of Omaha

Building and Zone Code Diagnostic Report

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August 2011

Prepared for the City of Omaha by  
Clarion Associates

In association with:  
Brendle Group and  
The Development Center  
for Appropriate Technology

# Basis

- Environment Element, the City of Omaha's Sustainability Plan
  - Natural Environment
  - Urban Form & Transportation
  - Building Design and Construction
  - Resource Conservation
  - Community Health & Safety
- Also drawing on Urban Design Standards and the results of the 2009 Energy Study

# Major Themes from Stakeholder Interviews

1. Build on the momentum of Environment Omaha
2. Think long-term
3. Incorporate new requirements, but balance with incentives and flexibility where possible
4. Address adaptive reuse as well as new development

Code diagnosis addresses the following in each relevant Environment Element section:

- Current regulations relevant to each topic
- Potential barriers in the Code
- Potential incentives for consideration
- Recommendations to fill regulatory gaps

# Urban Form & Transportation Recommendations

- Compact development/mixed-use
- Parking/design standards
- Transportation – connectivity, bicycles, alternative fuels & vehicles

Diagnosis: Urban Form and Transportation		
Existing Provisions	Possible Revisions	Examples
<b>REMOVE BARRIERS</b>		
<b>Compact Development / Mixed-Use</b>		
<p><b>UFT-B1:</b> Code does not explicitly provide for mixed-use development in most of its zoning districts, except for the mixed-use district that is applied in limited areas; need to more clearly define it as a use type and revise regulations to encourage as a primary building form and use type. Also need more clear standards for doing so.</p>	<ul style="list-style-type: none"> <li>▪ Amend definition of mixed-use to define it as a primary use type, with particular emphasis on increasing amount of residential use in commercial areas/projects. Consider adding it to appropriate districts as a permitted use. Make explicit how setbacks, height, density, etc., are to be calculated for mixed-use development so that developers can better plan sites and financing.</li> <li>▪ Consider including neighborhood compatibility standards for mixed-use projects in/adjacent to existing developed areas.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Colorado Springs, CO, has mixed-use zone districts and design standards that promote mixed-use projects while protecting surrounding lower-scale residential neighborhoods.</li> <li>▪ Henderson, NV, has tiered mixed-use zone districts with specific standards set for each zone.</li> <li>▪ Boise, ID has a “Skinny House” ordinance that regulates the design of homes on narrow infill lots, including design standards for architectural design compatibility with adjoining homes, height, and garage placement.</li> </ul>

# Building Design & Construction Recommendations

- Energy Efficiency
- Renewable Energy
- Green Building Improvements

FILLING REGULATORY GAPS		
Existing Provisions	Possible Revisions	Examples
Energy Efficiency		
<p><b>BDC-R1:</b> City building code makes no provision for energy standards that are more stringent than the adopted energy code.</p>	<p>Consider adopting the IGCC as a voluntary stretch code to facilitate the construction of beyond-code projects.</p>	<ul style="list-style-type: none"> <li>▪ The State of Oregon is developing a Reach Code to provide an optional set of energy efficiency construction standards that exceed the state's mandatory codes. The Reach Code will act like an alternative option allowing builders to have an optional green path of approved technologies and construction methods.</li> <li>▪ The State of Massachusetts has developed a Stretch Code for energy conservation to provide a more energy efficient alternative to the base code energy for new and existing buildings. Information can be found at the <a href="#">Building and Environmental Affairs</a> Department web site.</li> </ul>

# Resource Conservation Recommendations

- Renewable Energy
- District Energy Systems
- Urban Forestry & Water Conserving Landscape
- Outdoor Lighting
- Deconstruction requirements

Existing Provisions	Possible Revisions	Examples
<b>Outdoor Lighting</b>		
<p><b>RC-R4:</b> Current code does not address outdoor lighting</p>	<ul style="list-style-type: none"> <li>▪ Consider adopting a comprehensive outdoor lighting code that addresses maximum illumination, lighting budgets, lighting curfews, etc.</li> <li>▪ Consider targeted amendments to lighting code to require PV-powered outdoor lighting, LED and other modern, energy-saving lighting, and reduce overlighting of sites and waste of energy.</li> </ul>	<ul style="list-style-type: none"> <li>▪ Consider adopting model regulatory provisions recommended by the Illuminating Engineers Society of America (IES) and International Dark-Sky Association (IDA), like maximum wattage, required luminaires or lamp shading, curfews for lighting, and more. <a href="http://www.ies.org/handbook/">http://www.ies.org/handbook/</a> and <a href="http://www.darksky.org/mc/page.do?sitePagelid=84399">http://www.darksky.org/mc/page.do?sitePagelid=84399</a></li> <li>▪ Plymouth, MN, has adopted progressive outdoor lighting ordinance that restricts illumination levels and establishes site lighting budgets. Salt Lake City, UT, considering similar provisions.</li> <li>▪ Shelburne, VT, requires commercial signs to be turned off if a business is not open.</li> </ul>

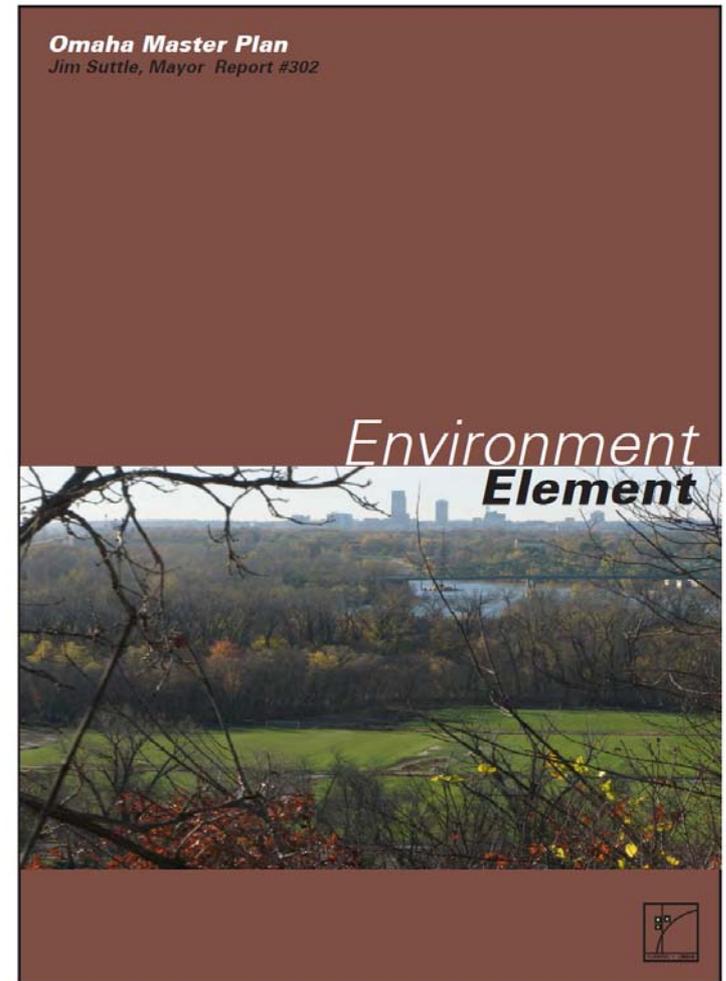
# ENVIRONMENT OMAHA IMPLEMENTATION TEAM

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Related to Our Code

# Environment Omaha Implementation Team

- Continuing effort to collaboratively engage on Environment Element Strategies



**Passed City Council December 17, 2010**

[www.cityofomaha.org/ecomaha/images/stories/pdfs/EnvironmentElement2010.pdf](http://www.cityofomaha.org/ecomaha/images/stories/pdfs/EnvironmentElement2010.pdf)

# Energy Efficiency Strategies

- *Provide incentives such as Energy Savings loan programs and Energy Efficient Mortgages and "on bill" financing to allow homeowners to utilize the savings from energy efficiency improvements to finance improvements that reduce energy use.*
- *Encourage the use of Energy Efficient Mortgage that factor reduced energy costs into a buyer's ability to pay for higher mortgage loans.*
- *Work with utility companies and local governmental agencies to develop programs and financial incentives to educate and facilitate improvements to building operation and maintenance practices.*



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building energy smart communities



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# Alternative Energy Strategies

- *Provide incentives for, and encourage the use of, geothermal heating and cooling systems.*
- *Provide information about the benefits of solar, wind, biomass and other renewable energy sources.*

# Key EOIT Priorities Related to Building Design & Construction

- Evaluate the building codes for changes necessary for the Green and Healthy Homes guidelines, and provide information about how to implement these recommendations
- Continue to update the city codes to incorporate the latest provisions for energy efficiency and healthy buildings



# Key EE Priorities Related to Codes

- Develop and enforce indoor air quality standards
- Continuously update and enforce codes that require landlords to maintain their property



# QUESTIONS?

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