



# Local Governance for Energy Sustainability

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Presentation for the Annual meeting of the Florida Chapter, American Planning Association, Tampa, September 2010

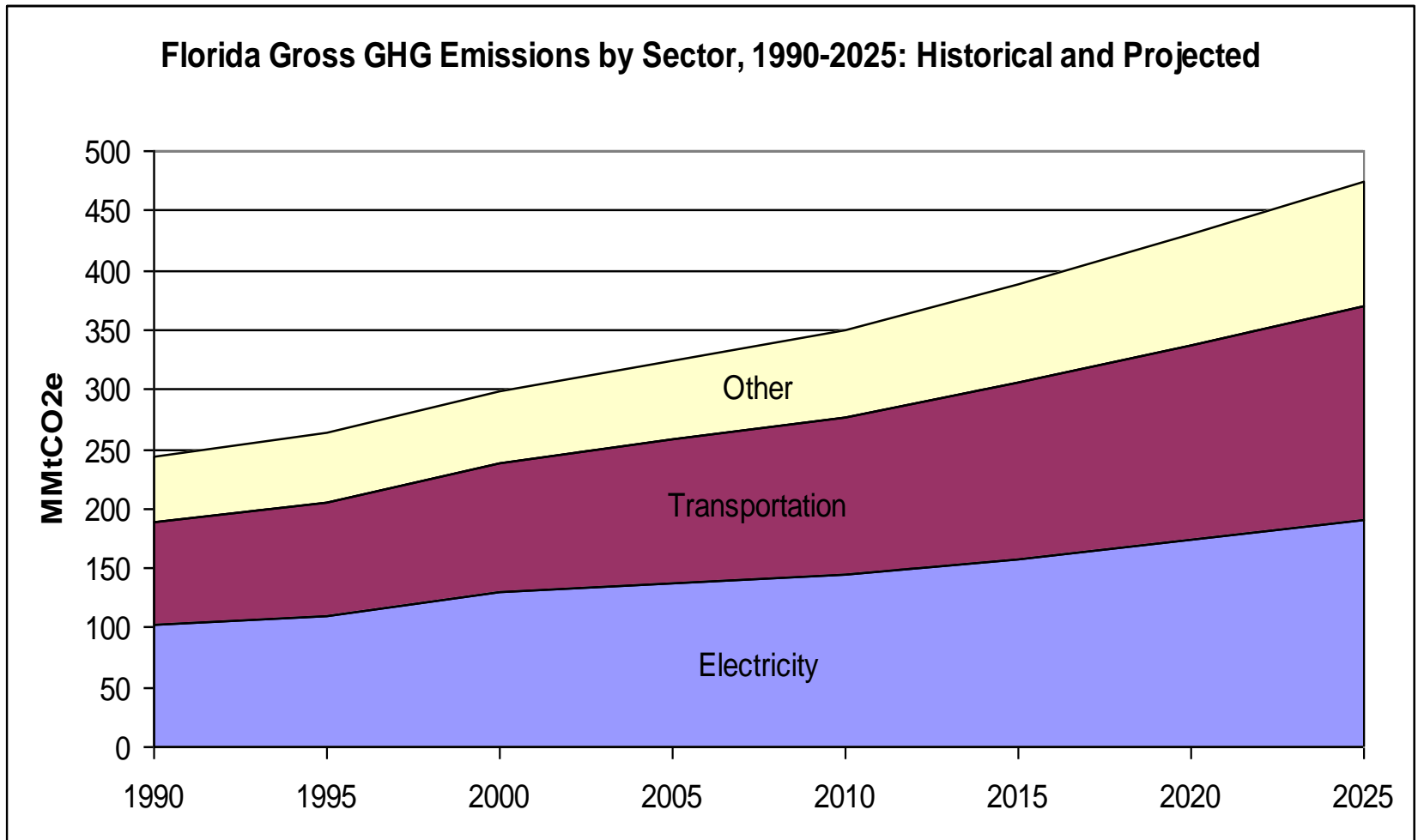
SUSTAINABLE ENERGY &  
GOVERNANCE CENTER



# Overview

- Adoption of Climate Protection Agreements by Florida Local Governments (w/Berry, Kassekert, and Yi)
- Survey of Florida Local Governments
  - Overview of Actions and Activities
  - Responses to State Planning Mandates
  - Barriers to Sustainability
- Investigate factors influencing city adoption of energy sustainable policy for government operations and the community.
- Ongoing and Future Projects

# Florida's Contributions to Greenhouse Gas



# Voluntary Action & Climate Protection

- Many Florida communities have taken on Energy/Climate Protection on a voluntary basis.
  - “Free-riding” is less of a barrier to policy adoptions than predicted by theory.
- Why?
  - Production of localized benefits
  - Complimentary effects for ongoing environmental, development or growth management efforts
  - Supported by network interactions
  - Generation of selective benefits to elected and appointed local governments officials

# Explanations

- **Community Demand**
  - Education/Preference for Public Goods
  - Environmental preferences
  - Climate change risk
- **Localized Policy Benefits**
  - Energy Conservation - cost savings
  - Emission reductions - pollution reduction, health benefits
  - Economic Development - New energy economy
    - Receptiveness to “green economic development”
  - Growth Management and Smart Growth
- **Institutional Incentives**
  - Form of government - career incentives
  - Council representation “at large”

# Participation in USCM Climate Protection Program

- Policy adoption is based on data reported by USCM and phone calls to each adopting municipality to determine if a resolution was passed and the data of adoption.
- Data from Census, AFRs, FLC, and FDTSMV
- Panel logit estimated with GEE estimation
  - An AR(1) covariance structure was used.

# Results

	Estimate	Std Error	Z	Pr >  Z
<b>Environmental tags</b>	<b>1.4579</b>	<b>0.9335</b>	<b>1.57</b>	<b>0.1004</b>
% White	-0.0123	0.0121	-1.02	0.3078
<b>% College degree</b>	<b>0.0407</b>	<b>0.0155</b>	<b>2.62</b>	<b>0.0087</b>
City Manager	0.0446	0.5607	0.08	0.9367
<b>% District rep</b>	<b>-1.2118</b>	<b>0.5821</b>	<b>-2.08</b>	<b>0.0373</b>
<b>Population (log)</b>	<b>0.9747</b>	<b>0.2156</b>	<b>4.52</b>	<b>&lt;.0001</b>
Per capita expenditures	0	0	1.13	0.26
Utilities (lag)	-0.4222	0.5953	-0.71	0.4781
Planning exp (lag)	0	0.0001	-0.01	0.9939
<b>Econ develop exp (lag)</b>	<b>0.0001</b>	<b>0.0001</b>	<b>1.82</b>	<b>0.0691</b>
Costal mileage	0.0025	0.0031	0.79	0.4296
Air quality	-0.0088	0.0222	-0.4	0.6911

# Results Summary

- Larger, higher spending, and well educated cities are more likely to adopt climate change agreements.
- District representation decreases the likelihood of voluntary action.
- Economic development policy positively related to adoption of climate protection agreements.
- **Need to investigate more than symbolic action**
  - SURVEY of ENERGY AND CLIMATE PROTECTION ACTIONS



# **SURVEY PROJECT:**

# **Energy Sustainable Florida Communities**

**Richard Feiock, FSU**

**and**

**Ivonne Audirac, UTA**



The Institute for Energy Systems, Economics and Sustainability (IESES) at Florida State University is investigating Florida local government actions related to energy efficiency and climate change to better understand and assess local efforts and to assist local governments in Florida. This project is supported by the FSU Center for Florida Local Government Excellence. Your participation is critical to the success of these efforts. This survey will take approximately 20-30 minutes to complete. We anticipate that the results will also benefit local governments and we will share these results with all participants.

Your answers to survey questions will remain confidential to the full extent allowed by law. The results of this research study will be published, but individual respondent will not be identifiable in any reports. If you have any questions concerning this research study, please contact Dr. Richard Feiock by email at [rfeiock@fsu.edu](mailto:rfeiock@fsu.edu) or phone at (850)644-3525. Thank you.

**Please return this questionnaire to:**

**Richard C. Feiock**

**Askew School of Public Administration and Policy**

**Florida State University**

**Tallahassee FL 32303-2250**

# Survey of Florida Local Governments

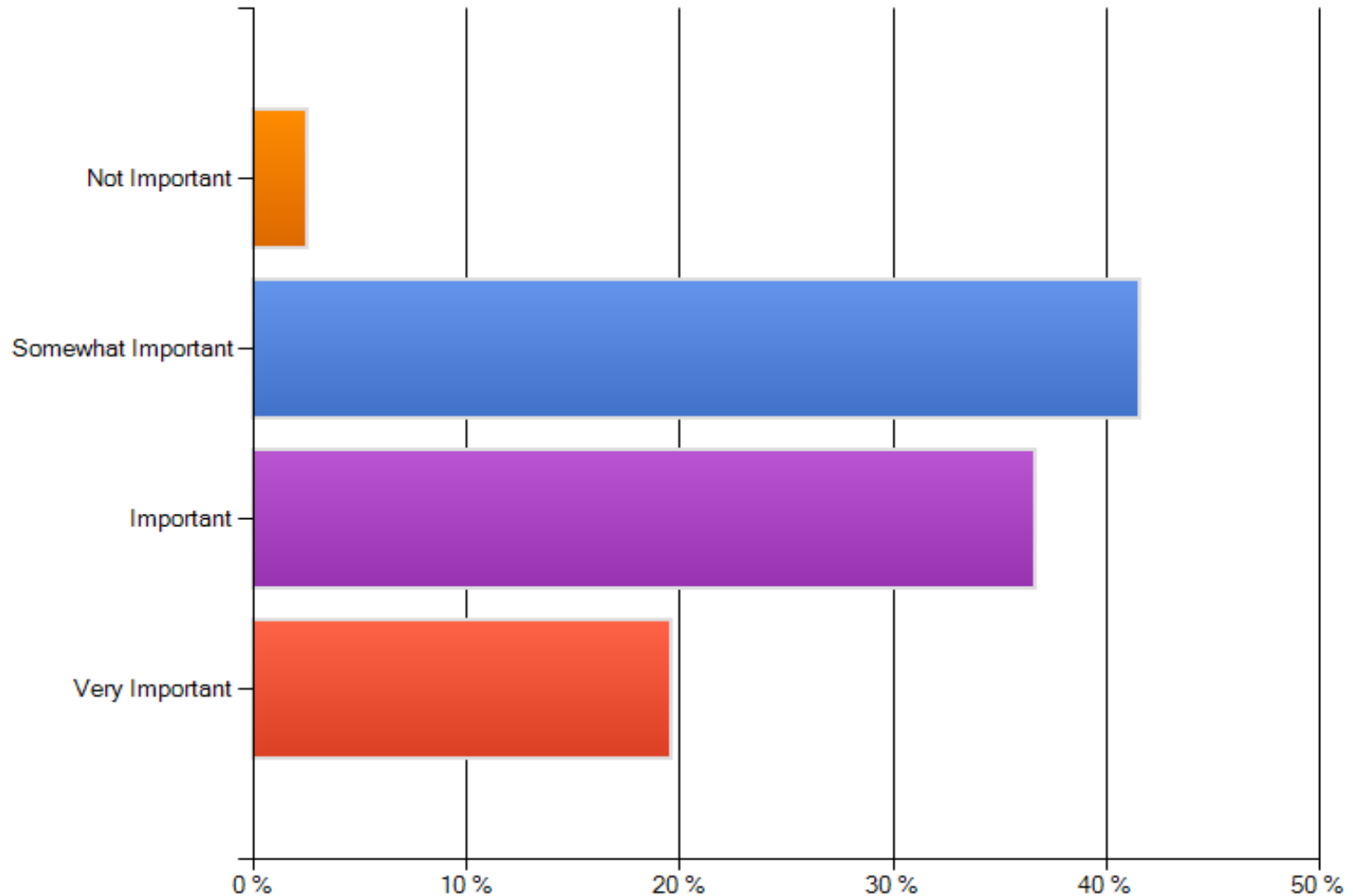
## Identifying the elements of energy sustainability:

- Energy & Climate Policy
- Comprehensive Plans & State and Federal Policy
- Zoning Regulations Subdivision Regulations and Permitting
- Land Use and Open Space
- Housing and Green Building
- Transportation
- Economic Development
- Energy Cost Reduction by Government
- Organization and Intergovernmental Relations
- Investing in Energy & Climate Change Competencies



# Importance of Energy/Climate Issues

How important are energy/climate change issues in your jurisdiction?



# Importance of Green Business

. How important is the attraction of "green business" in your jurisdiction's economic development strategy? (N = 111)

	<u>Percent</u>
Not important	26.1%
Somewhat important	49.5%
Highly important	18.0%
Most important	6.3%

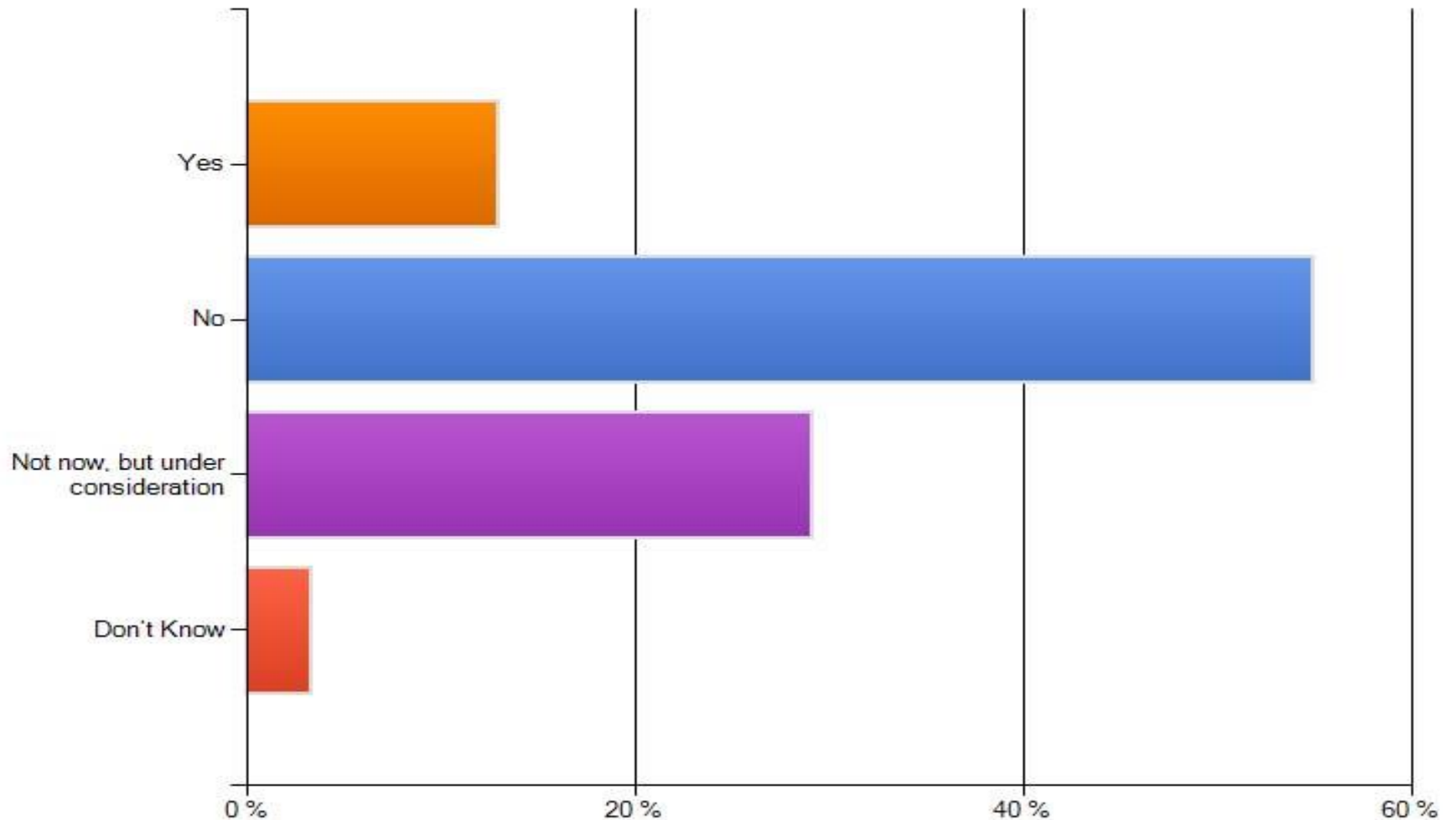
# Expedited Permitting

**Does your development review system offer fast-track, streamlining or other development-review incentives to encourage green neighborhood design?**  
(N = 102)

	<u>Percent</u>
Yes	13.8%
No	70.2%
Don't Know	5.9%

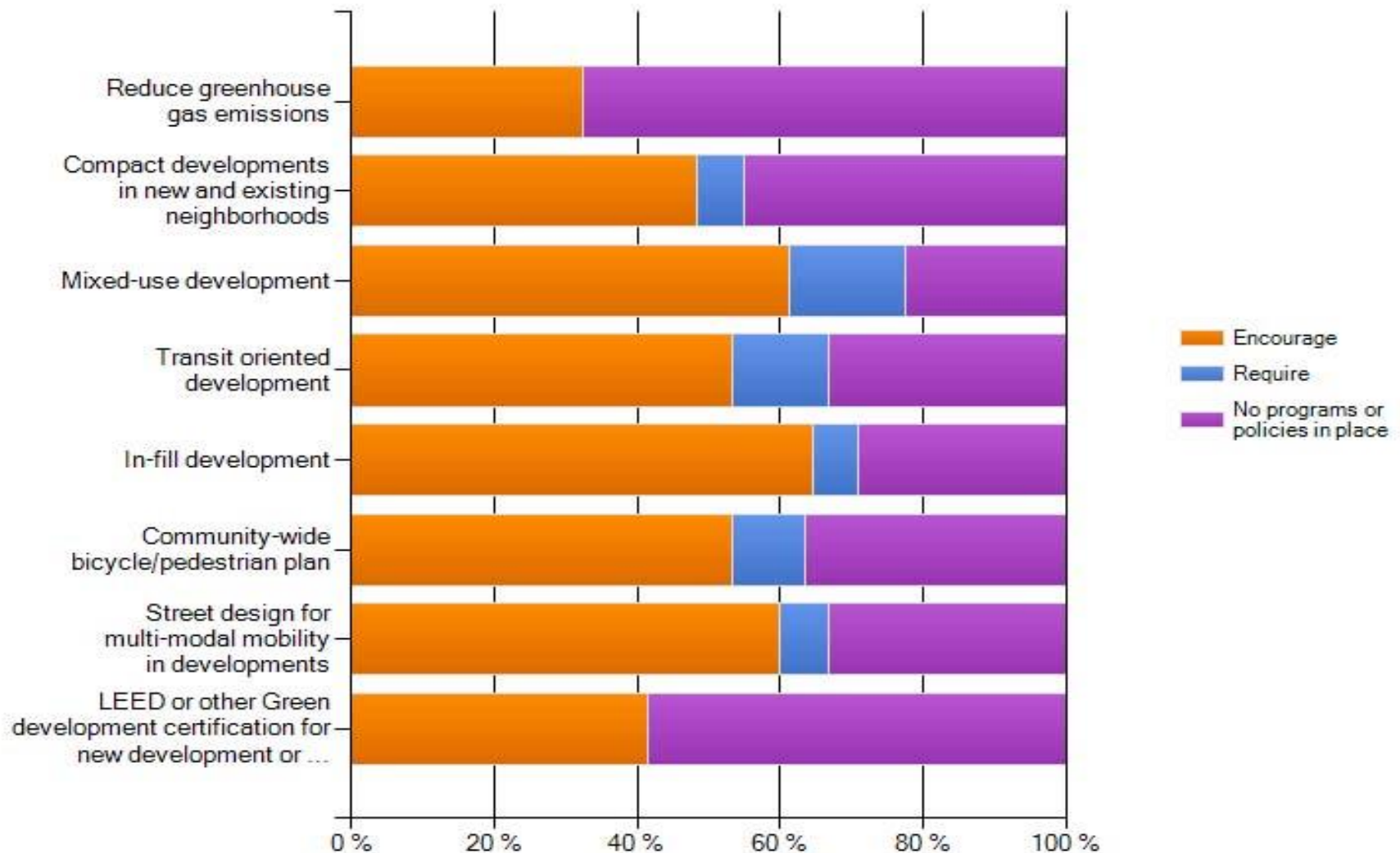
# Density Bonus

**Does your jurisdiction offer density bonuses or other incentives to developers for incorporating energy efficiency or sustainable elements into their projects?**



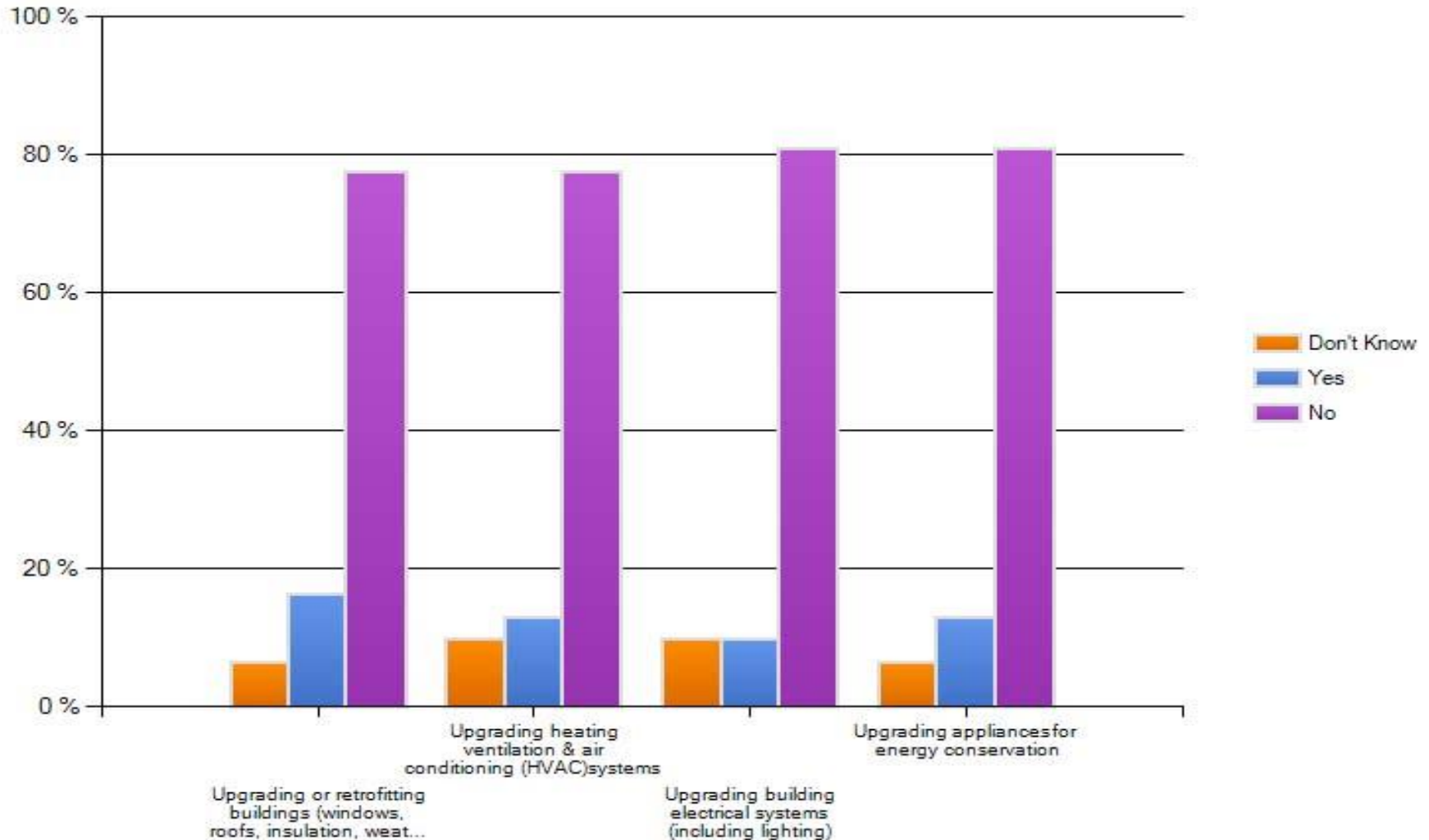
# Land Use Programs

Has your jurisdiction established LAND-USE policies or programs to encourage or require the following? (select all that apply)



# Loans Grants Rebates

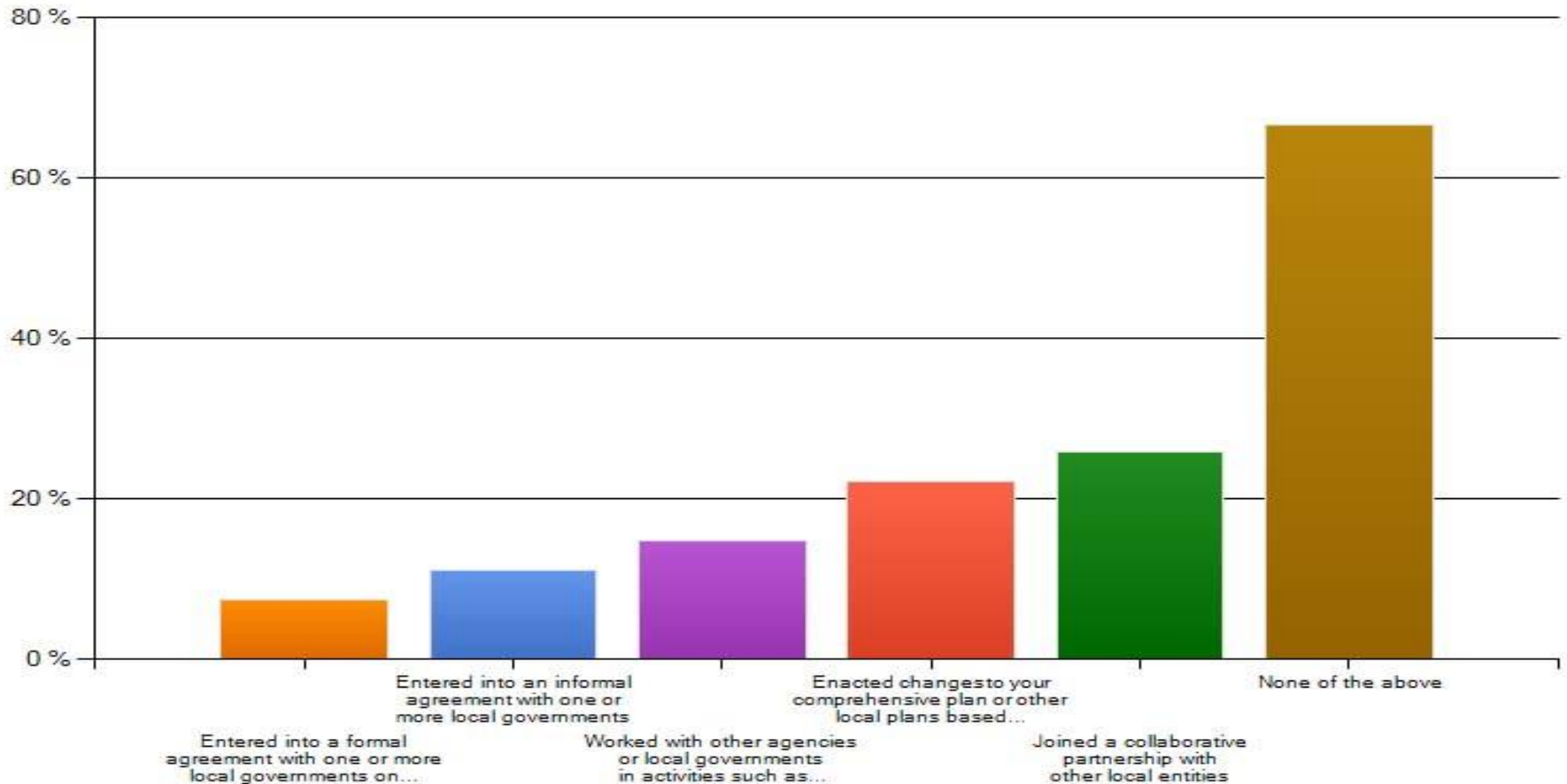
Does your jurisdiction offer LOANS, GRANTS, or REBATES to encourage energy efficiency or energy savings? (select all that apply)





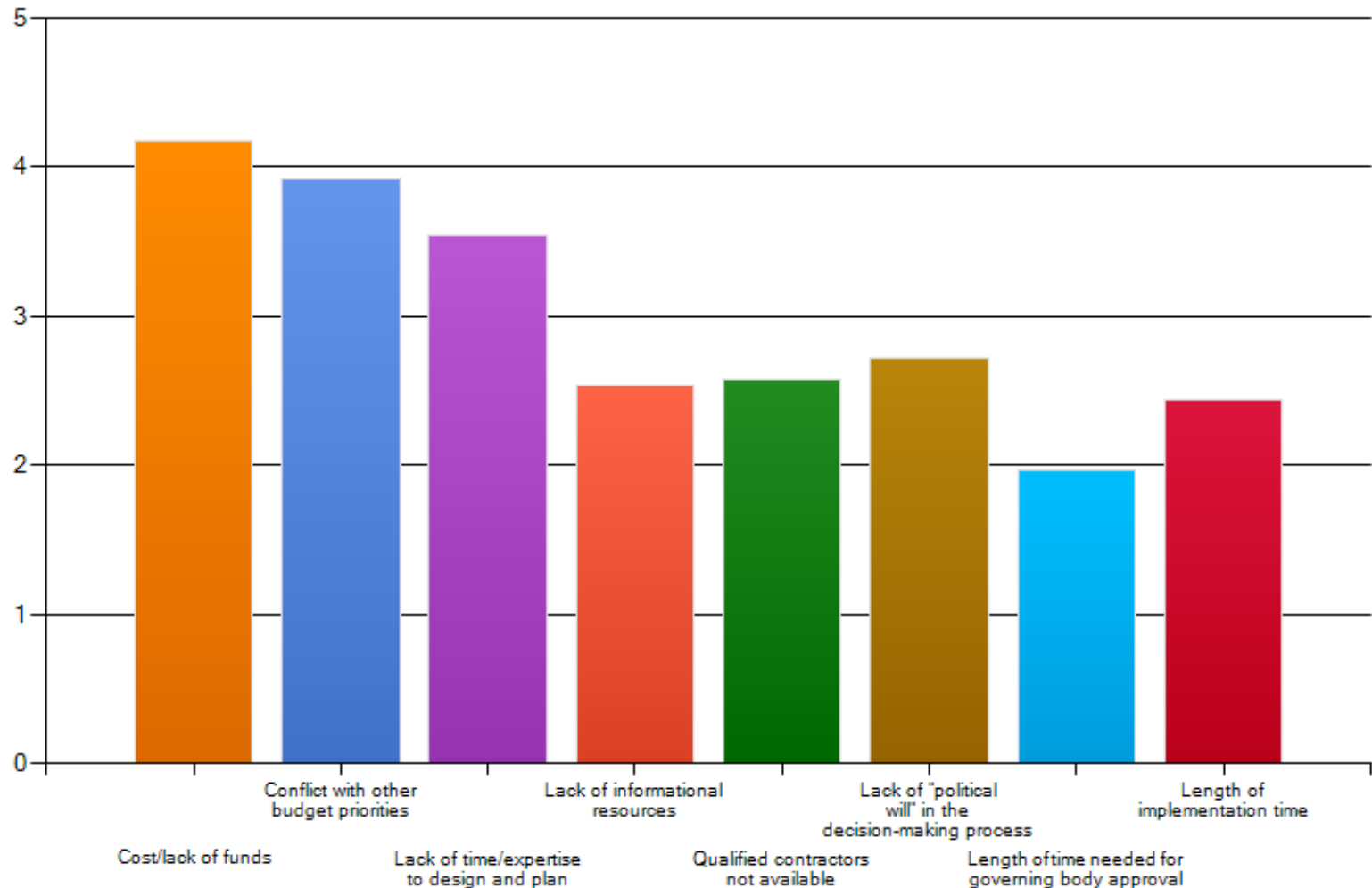
# Intergovernmental Collaboration

Has your government engaged in any of the following collaborative actions related to land use related greenhouse gas emissions? (check all that apply)



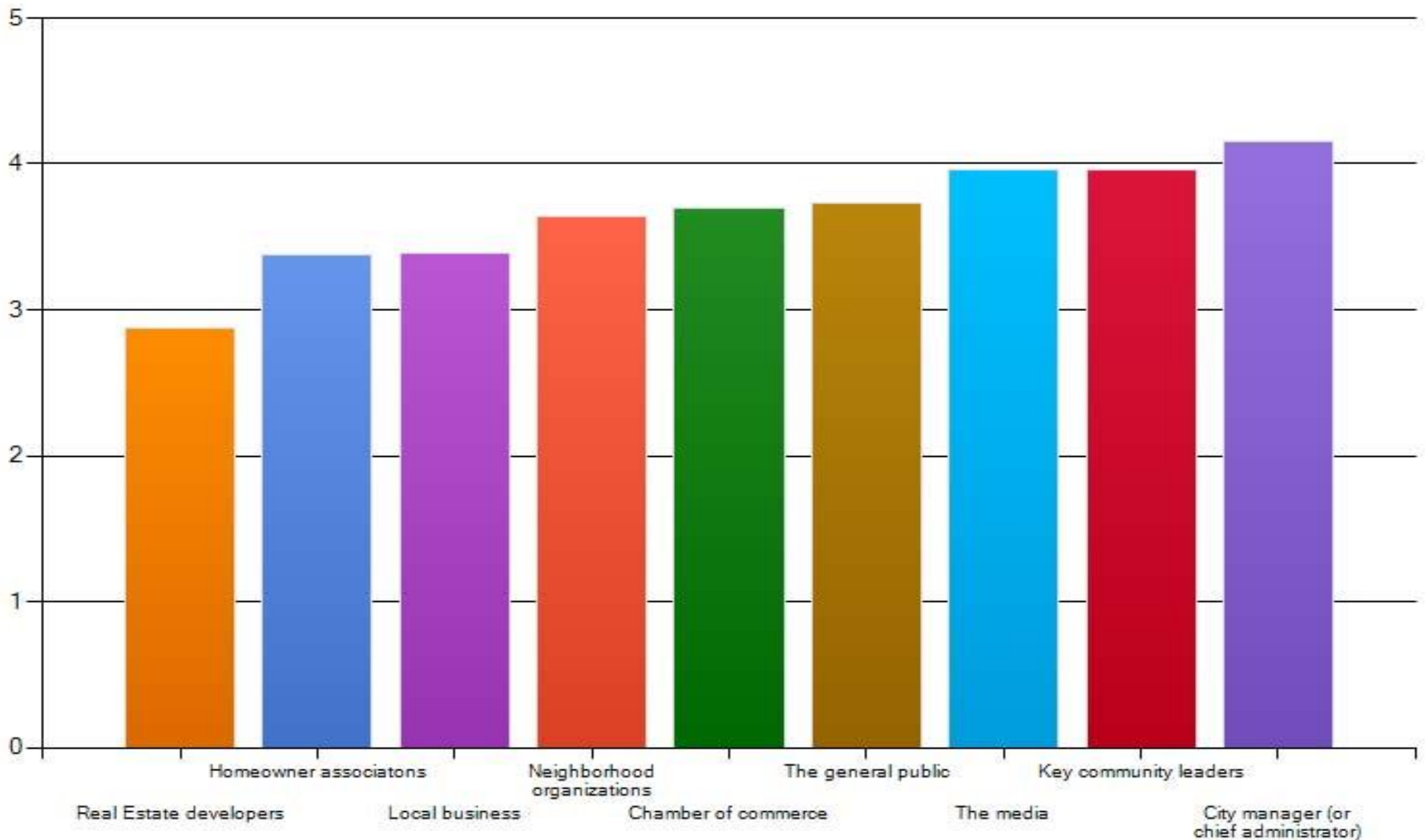
# Obstacles to Sustainability

On a scale from 1 = "not an obstacle" to 5 = "substantial obstacle", please rate the following factors with respect to your local government's ability to reduce overall energy use.



# Political Support

To what extent would the following individuals or groups support or oppose energy conservation and climate protection efforts by your government?



# Dependent Variables

- Which of the following energy/climate related issues does your jurisdiction officially address (e.g., through regulation or policies) as it relates to government facilities and community at large? (*select all that apply*)
  - Green buildings
  - Retro-fitting existing buildings for energy efficiency
  - Alternative transportation systems
  - Green procurement
  - Technology innovation/ demonstration projects
  - Energy efficient devices (appliances, lighting, etc.)
  - Energy efficiency systems (building controls etc.)
  - Inventory of greenhouse gas emissions
  - Renewable energy
  - Smart grid/net metering
  - Alternative fuels
  - Incorporating energy use in land use decisions
  - Provide information about efficiency to employees/residents

## Government

## Community

R	Estimate	t	Estimate	t
Population (log)	.619**	1.99	.496*	1.88
Located in metro	.177	.22	-.514	.75
Population density	.146	.61	.707**	3.24
Planning Bureaucracy	1.34**	3.50	.592	1.82
Mayor – Council	-.887*	-1.77	1.085**	2.55
PCPI	.000	.29	.011	.87
Non-Hispanic white	.326	.22	.061	.78
Public Support	.878**	1.98	.885**	2.00
Chamber of Commerce	.445	1.32	1.033**	2.87
Environmental Orgs	.170	.49	1.57	.45
* P < .1				
** p < .05		R2 .27		R2 .28

# Findings

- Council-Manager government produces energy climate policy focused on city government operations
  - Consistent with efficiency orientation
- Mayor Council government produces energy/climate policy focused on community
  - Consistent with electoral incentives

# Our Research Agenda

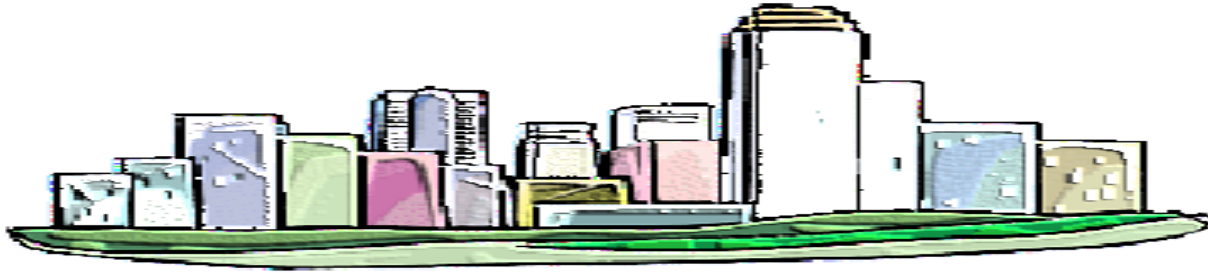
- Survey of County Governments
- Collaboration and Partnerships for Innovation
- EECBG Project Implementation
- Network of Energy Sustainable Communities

# EECBG Funds

**To which of the following eligible activities are your Federal Energy Efficiency and Conservation Block Grant (EECBG) funds directed?**

	<u>Percent</u>
Development of an efficiency and conservation strategy	26.2%
Residential and commercial building energy audits	12.5%
Incentive programs for energy efficiency improvements	17.2%
Grants to nonprofit organizations and government agencies	9.4%
Energy conservation programs for buildings and facilities	29.2%
Development and implementation of transportation programs	10.9%
Building codes and inspections to promote energy efficiency	14.1%
Distributed resources, combined heat and power and district systems	3.2%
Material conservation programs	17.2%
Energy efficient traffic signals and street lighting	16.9%
Renewable energy technologies on government buildings	26.2%





# Network of Energy Sustainable Communities

- Sharing Innovation and Best Practice
- Bulk Buying Consortium
- Self Financing Projects



# SUSTAINABLE ENERGY AND GOVERNANCE

FSU Institute for Energy Systems  
Economics & Sustainability



Sustainable Energy Governance Center  
<http://seg.fsu.edu>