

ATTACHMENT A

**A RESOLUTION FOR RECEIVING AN UPDATE
ON THE TOWN'S ENERGY PLANNING ACTIVITIES
Resolution No. 165/2009-10**

WHEREAS, Town staff have prepared a memo updating the Carrboro Board of Aldermen on recent staff activities related to climate protection and energy efficiency grant submittals; and

WHEREAS, an ARRA grant application has been submitted to the US Department of Energy (USDOE) Retrofit Ramp Up program in collaboration with the Town of Chapel Hill and the Southeastern Energy Efficiency Alliance (SEEA) to pursue community scale energy efficiency retrofits;

NOW THEREFORE BE IT RESOLVED by the Carrboro Board of Aldermen that the Aldermen accept the report prepared by staff and authorize staff to develop a program design and budget for Board review with the goal of supporting building retrofits for energy efficiency and renewable energy.



TOWN OF CARRBORO

NORTH CAROLINA

TRANSMITTAL

PLANNING DEPARTMENT

DELIVERED VIA: ☒ HAND ☐ MAIL ☐ FAX ☒ EMAIL

To: Board of Aldermen

From: Randy Dodd, Environmental Planner

Cc: Steven Stewart, Town Manager
Roy Williford, Planning Director
Patricia McGuire, Planning Administrator
Matt Efird, Assistant to the Town Manager
James Harris, Community and Economic Development Director

Date: May 26, 2010

Subject: Climate Protection Survey and Status of ARRA Grant Applications Related to Energy

Summary

The purpose of this memo is to update Board members on recent staff activities related to climate protection and energy conservation.

Information

Climate Protection Survey

In 2001, Carrboro became a member of ICLEI-Local Governments for Sustainability, an international membership association of over 1000 local governments (worldwide) committed to sustainability. Carrboro has worked with neighboring jurisdictions to take part in ICLEI's Cities for Climate Protection (CCP) Campaign. This campaign follows a five step process:

- Milestone One: Create a GHG Emissions Inventory and Forecast
- Milestone Two: Set a Reduction Target
- Milestone Three: Develop a Local Action Plan
- Milestone Four: Implement the Local Action Plan
- Milestone Five: Measure Progress and Report Results

The Orange County greenhouse gas emissions inventory has been completed, and is available at <http://www.co.orange.nc.us/ercd/greenhousegas.asp>. Additional information about Carrboro's participation in the CCP campaign and more recent local climate protection considerations is also available from previous Board agendas on December 8, 2009, October 20, 2009, and March 17, 2009. Town staff are exploring strategies to proceed with determining an achievable emissions reduction target (Milestone Two) and selecting strategies for a climate action plan (Milestone Three) and will be pursuing related work this summer and plan to report back to the Board on progress in the fall. Compilation and assessment of the information noted in the Board's resolution of December 8 regarding Carrboro's role in a global CO2 limit of 350 ppm will be addressed in these activities.

Climate Protection Survey

Town staff have created a survey for public input into local climate protection. The survey was created to assess community priorities and perspectives regarding establishment of approaches for reducing greenhouse gas emissions. The survey included both close ended and open ended components, and was designed to take 10-30 minutes to complete. Familiarity with climate protection science and policy and the greenhouse gas emissions inventory recently completed supported completion of the survey, but was not required. 56 responses to the survey were received, with most coming from Carrboro residents. A summary of the survey results is provided in Table 1. Further details are included as Appendix A, and also available online at http://www.surveymonkey.com/sr.aspx?sm=Y2V8b6yoJq5Cj239YoEYxpuOnSDuZ4TMAT3_2b44wuZhk_3d.

Table 1: General Summary of Climate Survey Responses (Close ended questions)

Topic	Response
General concern about climate change	A majority of respondents agreed that climate change is a major concern
General room for improvement with energy efficiency	A majority of respondents strongly agreed that "we can all do more to use energy more efficiently"
Leadership with energy conservation	A majority of respondents agreed that leadership needs to be shared in public/private sectors and all levels of government
Reduction target by 2030	There was some diversity in preference for a moderate (17%) per capita reduction to beyond 50% reduction
Sectors to focus on reduction	The transportation sector received the highest preference for a sector to focus on, followed by government sector
Local government performance on climate protection	Local government current performance was seen as "needing improvement" for all questions posed
Activities for local governments to pursue	For the 15 activities offered, no definitive activities were identified to either focus on or ignore, although there were some slight overall preferences.

Submittal of ARRA Grant Applications

Town staff have worked with Chapel Hill staff and a nonprofit, the Southeastern Energy Efficiency Alliance (SEEA), to participate in an application to the US Department Of Energy "Retrofit Ramp Up" program which is geared towards community scale energy efficiency retrofits of existing buildings. The concept that is being pursued is the establishment of a local energy alliance. This partnership would focus on building science, systems, and usage behavior, with an emphasis on improving energy efficiency by 20% - 40% per structure, and a second emphasis on phasing in alternative/renewable generation. The SEEA application to DOE was successful (partially funded), and included participation from jurisdictions throughout the southeast (Table 2). The project will unfold over two to three years, with the partnership and alliance being a long term, sustaining pursuit. In addition to this new Retrofit Ramp Up initiative, the SEEA has been supporting establishment of a local energy alliance in Charlottesville, VA; efforts there could provide a "roadmap" for local efforts. Chapel Hill and Carrboro are expected to receive \$225k in the initial year to help establish a local alliance, with final contract expected in summer, 2010. Chapel Hill and Carrboro, would be eligible to compete with other SEEA participants for additional funding after the initial year, as described below.

Table 2: Jurisdictions Participating in Southeastern Energy Efficiency Alliance Retrofit Ramp Up

Jurisdiction	First Year Funding
Atlanta	\$1,200,000
New Orleans	\$1,000,000
Jacksonville	\$1,200,000
Hampton Roads Metro*	\$350,000
Charlottesville Metro	\$800,000
Huntsville	\$400,000
Virgin Islands*	\$200,000
Chapel Hill/Carrboro	\$225,000
Charleston	\$500,000
Decatur	\$125,000
Charlotte *	\$400,000
Nashville*	\$250,000
TOTAL	\$6,650,000

*"Tier Two" Jurisdictions

The following text is adapted from information provided by SEEA.

The first year allocations were based on three criteria: 1) capacity, based on present organizational structure, staffing, track record, target market size and resource matches from EECBG funds, local utilities, foundations, private capital and other sources; 2) for smaller communities, a threshold level of support required to enable their successfully launching an alliance program; and 3) a total first year budget comprising no more than 30% of the award total. SEEA proposes to offer each of the eight "Tier One" communities (including Chapel Hill/Carrboro) one year of support to hire staff, design their programs, and achieve start-up implementation of their programs. SEEA also offers at no cost (with budget ceilings) these

communities support with: marketing; program design; workforce development; monitoring and verification; customer tracking; and quality assurance.

The Tier One cities will receive their Year One allocation in two allotments, with the second contingent (50%) upon reaching specific milestones, during the first six months of program start-up. These milestones will focus on program management in place, program designs completed, leverage sources committed, utility relationships formalized, and marketing strategies underway. Tier one cities failing to meet this milestone are subject to a termination of funds at the six month juncture.

After Year One, the remaining \$7.4M in SEEA's award will be allocated to communities based on completed project agreements with customers, with a minimal cost-share or leveraging requirement of 50%. To do so, SEEA will establish a central bank account, consistent with DOE guidelines, that disburses incentives and program support funds. The allotments allocated can be split between customer incentives and program support in any manner the community decides. SEEA will plan to disburse 50% of the "earned" funds once a customer Letter of Intent (LOI) is signed. The remaining 50% will be sent upon the signing of a customer agreement or contract to move forward. For communities that establish a consistent stream of small customer transactions, we may convert that formula to an advance based on the monthly average of total project dollar value in energy efficiency projects completed. SEEA will establish a dollar ceiling for the \$7.4 M that any one community cannot surpass. If the federal government passes Home Star/Building Star legislation, SEEA will adjust upward the leveraging requirement accordingly.

In part because SEEA is establishing a first come, first serve basis for the remaining \$7.4M, SEEA will establish ground rules on acceptable customer incentive levels. SEEA will also establish customer incentive limitations as a percentage of total project value by customer end-use and measure category. For example, national experience has demonstrated that residential SF envelope and air sealing measures require close to a 50% incentive in most regions; replacement appliances with high EE ratings require incremental cost incentives only. Energy performance contract incentives in the 15-20% range should be sufficient to engage most targeted customers. Commercial building lighting incentives may vary according to utility rates, but achieving a customer payback of 2-3 years has worked in most locations. These incentive formulas will be established in consultation with each community, but will be consistent across the region (controlling for utility rates). They will be established in the first month of program implementation.

To facilitate communities' access to financing programs, SEEA will allocate funds to a Regional Loan Loss Reserve (LLR) for a Financing Program that SEEA establishes for all communities. SEEA will select a lending team which will establish a program throughout the Southeast to provide process, market, and service a loan program. Consistent with the program strategy above, the LLR will not set allocations by community, but rather will use a single program serving all participating communities.

SEEA will staff the program with a: program director; accounting director; communication manager; and two community program associates. SEEA will also support consultants and

vendors for nine categories of anticipated support; this support will be available to partners on an as needed basis during the first year of the program. These categories are:

1. Management Support
2. Accounting Support
3. Monitoring and Verification/Customer Tracking
4. Marketing Strategy
5. Financing assistance
6. State Support
7. Workforce Development
8. Program Design Assistance
9. Communication/Best Practices

Clean Energy Solutions is a consultant to SEEA, as well as the Town of Chapel Hill. Steve Morgan is President of Clean Energy Solutions and a local resident. He will be available to address the Board. More details about Clean Energy Solutions and Mr. Morgan are included in Appendix B.

Town staff have discussed this opportunity, and recommend that for the first year funding allocation, the following strategy be pursued:

- 1) The Town use a majority of the available funding (pending final award; anticipated at \$75k for Carrboro) to seed an energy revolving loan fund for Carrboro;
- 2) This revolving loan fund focus on local businesses for pilot testing because of the Town's proven success with this approach in this sector, the need to respond quickly, and staff assessment of feasibility and likely success;
- 3) Staff work closely with SEEA, Chapel Hill staff, and others to develop a longer term strategy for expanding this pilot program.

EECBG Grant Application

To pursue additional energy efficiency opportunities in Town buildings, Town staff applied for stimulus funding through the Energy Efficiency Conservation Block Grant (EECBG) program being administered by the State Energy Office (SEO). This program issued a competitive RFP specifically for the most efficient short term municipal building energy efficiency improvements. Town staff received technical assistance from the SEO in reviewing the grant criteria and assessing opportunities in buildings, and subsequently submitted applications for lighting and HVAC retrofits for five Town buildings through this program. This potential revenue and Town match has been included in the budget for FY10-11; however, the SEO has recently posted a list of jurisdictions receiving funding that did not include Carrboro (http://www.energync.net/resources/docs/press/05-18-2010_EECBG_Cities_release.pdf). (Staff are awaiting formal notification.)

Table 3: State Energy Office EECBG Grant Application Summary

Building	Federal Share	Town Share	Duke Energy Share	Total Grant Value	Annual Utility Savings	Annual Energy Savings (kwh)
Town Hall**	\$28,220		\$2040	\$30,260	\$4030	44,865
Fire Station**	\$16,000	\$6,000	\$970	\$22,970	\$1170	19,700
Century Center*	\$13,500	\$1,500		\$15,000	\$2300	38,000
Public Works*	\$5,743	\$1,550	\$457	\$7,750	\$822	10,270
Carr Court Community School**	\$13,834	\$1500 (Community School)	\$541	\$15,875	\$2480	27,550

**Lighting retrofits and heat pump replacement

*Lighting retrofits only

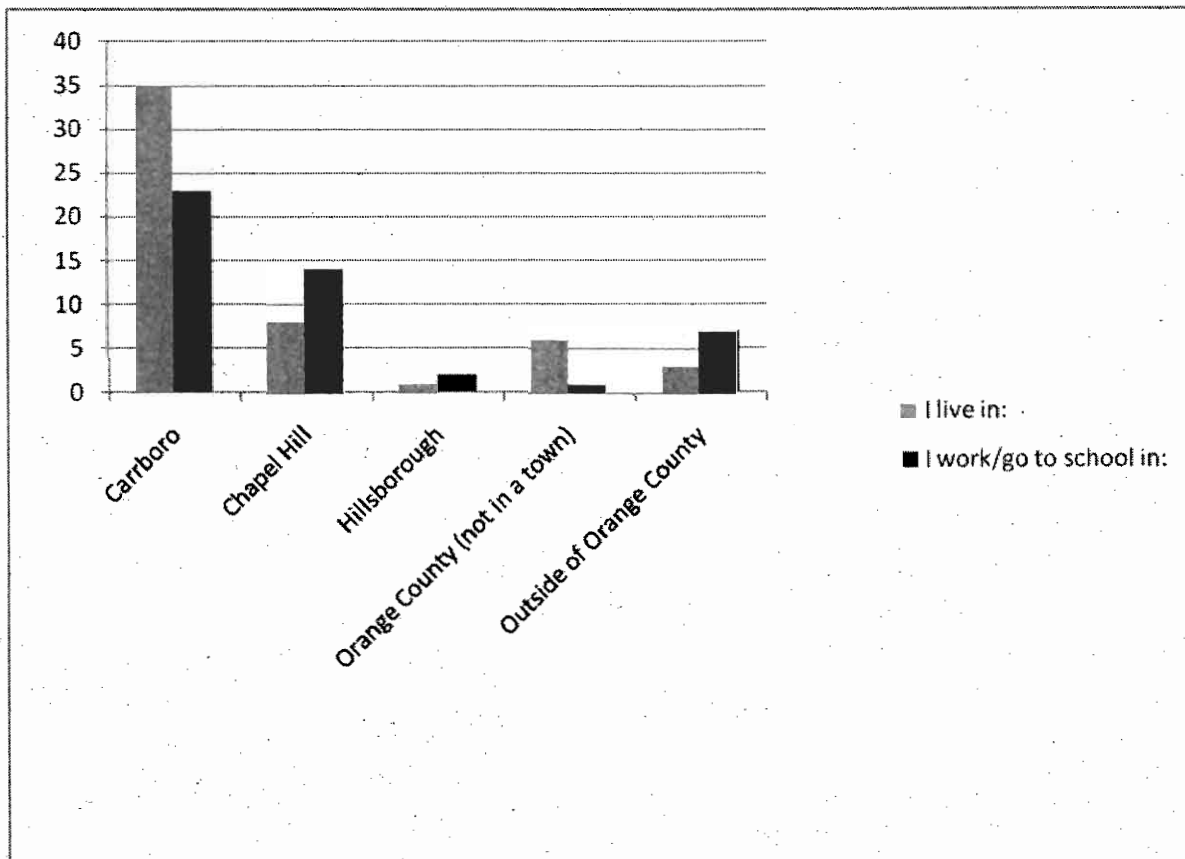
Recommendations

- 1) The Town enter into contract with DOE, through SEEA, to pursue energy retrofits in buildings;
- 2) The Town use a majority of the available funding (pending final award; anticipated at \$75k for Carrboro) to seed an energy revolving loan fund for Carrboro;
- 3) This revolving loan fund focus on local businesses for pilot testing because of the Town's proven success with this approach in this sector, the need to respond quickly, and staff assessment of feasibility and likely success;
- 4) Staff work closely with SEEA, Chapel Hill staff, and others to develop a longer term strategy for expanding this pilot program.

Appendix A Results of Climate Protection Survey

Results of the Climate Protection Survey are presented below. The survey was posted via an online survey vendor, Survey Monkey. Hard copies were also distributed. All numbers on the vertical axis represent the number of respondents. For some questions, a text box was provided for open ended comments. These are presented verbatim under "Comments" for each question.

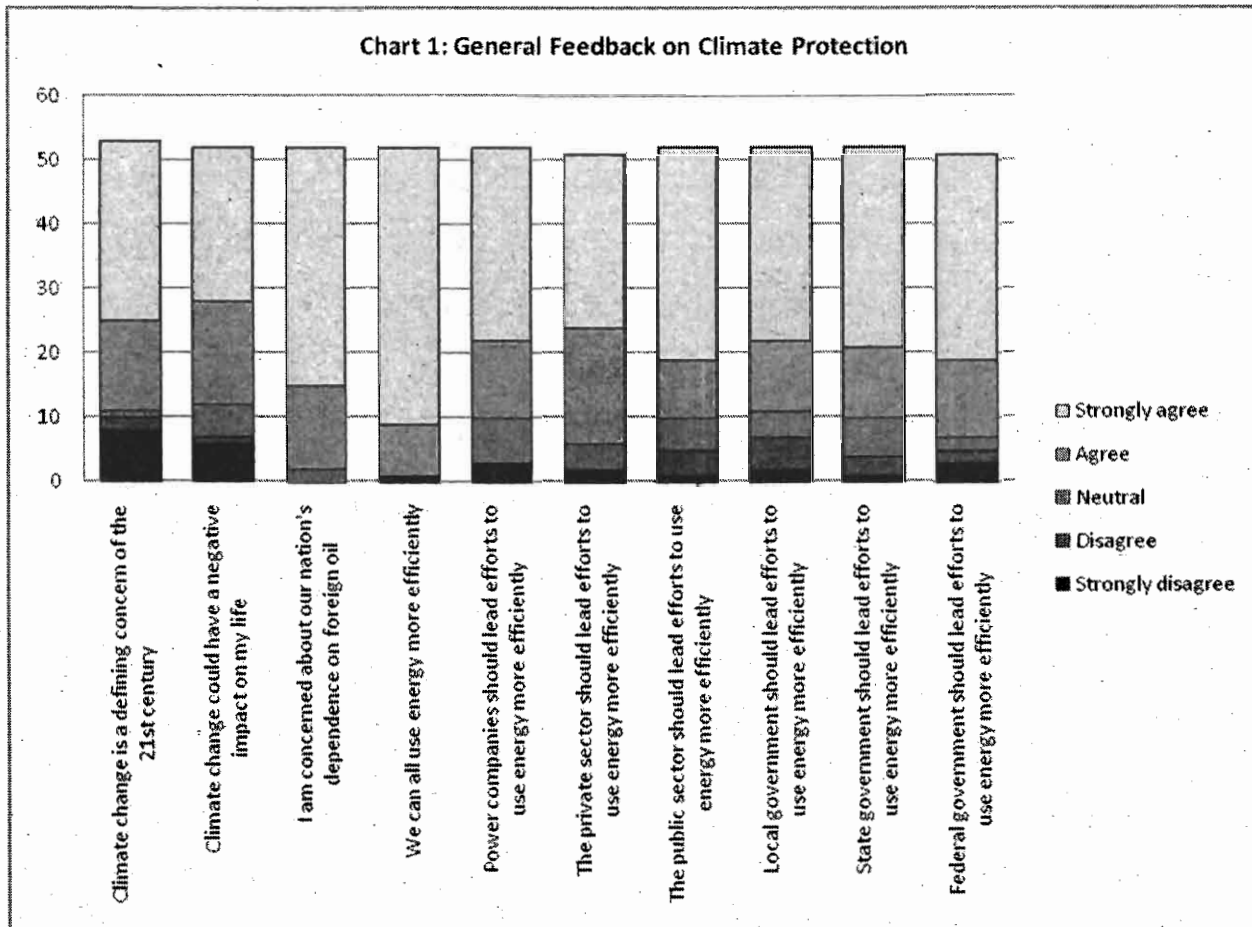
I. Survey Participation



Names of participants (not required; about half of responses were anonymous)

Jason Baker	Elise Giddings	Brian Plaster
Russell Bither-Terryq	Betty B. James	Ahnie Rising
Burger	John M Kramer PE	Sally Robertson
Nina Bellucci Butler	Catherine Lazorko	Daniel C. Ryon
James A Carnahan	Michael Maher	Pitchayapa Shapiro
David Clinton	Patrick McDonough	Sammy Slade
Tabitha Combs	Tom Mullen	Sally Stearns
Marc Desormeau	Abraham Palmer	James Watts
Joel Duvall	Kathryn Melissa Peck	

II: General Feedback



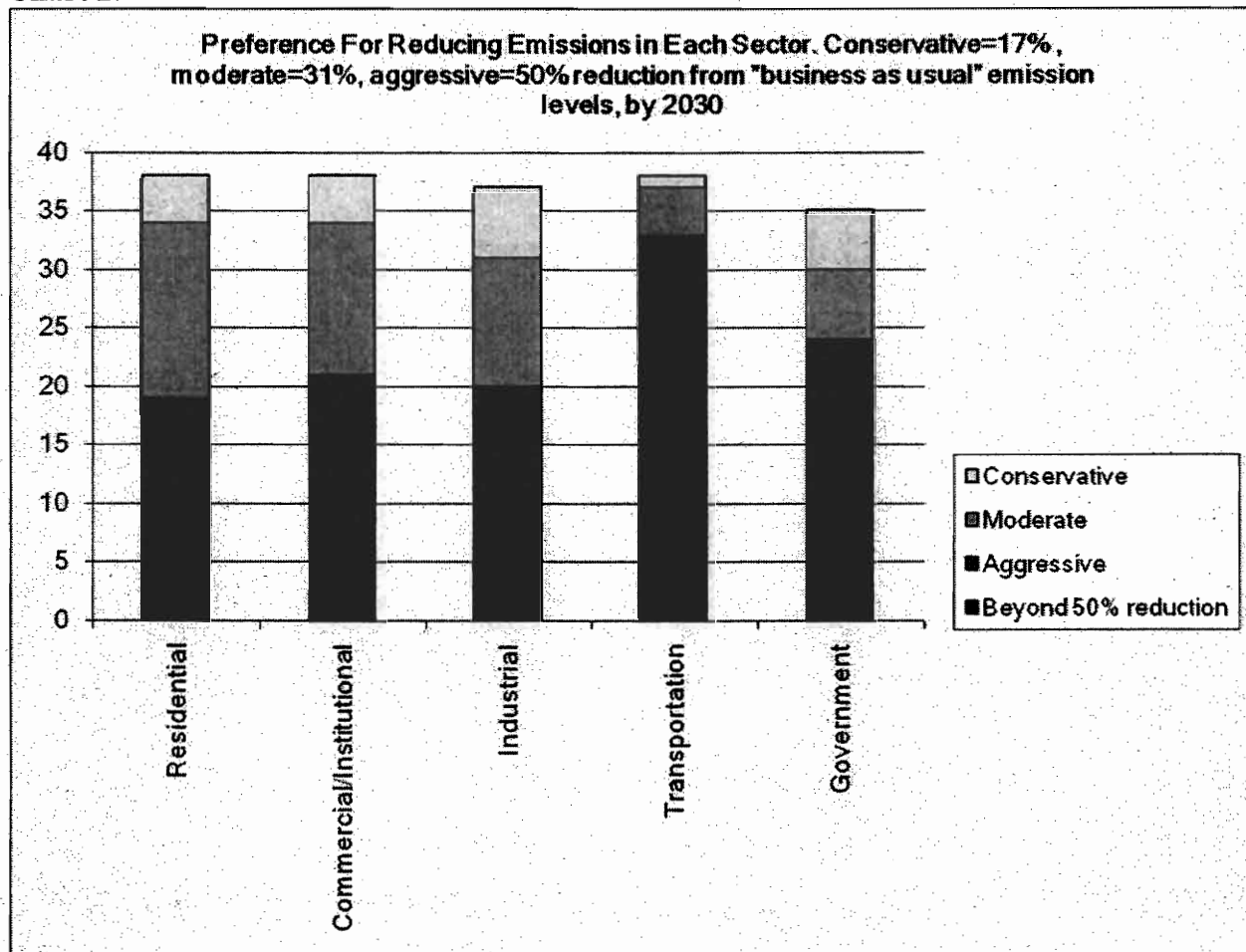
Comments:

1. Spending our tax money on trying to overcome "purported" climate change issues will have a more negative impact on my life than doing not spending it!
2. Government regulation should ONLY inspire creativity and not burden the private sector and taxpayers with extra taxes.
3. Climate change research has been designed to prove a problem on poor models and data.
4. Lead, and the sheep will follow.
5. The Greenhouse Gas Emissions Inventory and Forecast for Carrboro + Chapel Hill is skewed. If the format is revised it becomes clear that the Transportation component includes city vehicles and busses and they make up a large part of that item. Also, the Institutional component has the University, which is the largest carbon emitter in the county and is owned by the State and therefore is NOT a Private entity and can be influenced more easily by legislation. Saying it again: the Public sector is IN FACT, the largest polluter.
6. Local government cannot cost effectively be a leader in energy efficiency.

7. Both public and private sectors must work on the problem in their unique ways. Power companies, while maybe they should lead, I don't expect to do much.
8. Creating incentives for power companies and individuals/business to conserve energy may get the most immediate turnaround. I think the other areas are important, but you need momentum in the direction first, then buy in on the others will come more easily.
9. Individuals should also lead efforts; we should all lead, but I checked "strongly agree" for those I believe are most likely to be leaders.
10. The private sector (power companies included) are only going to be driven by price I believe so I think it is necessary for governments to put a price on their climate impact.
11. It is THE defining concern of this century. Make no mistake about it.
12. We cannot rely on the private sector to lead. They got us into this mess.
13. As to the last 6 statements, every sector should play a leadership role.
14. The technical expertise required to efficiently spend money on energy conservation does not exist at a local level.
15. It is a task for everyone to take on

III. Preferences for Emissions Reductions

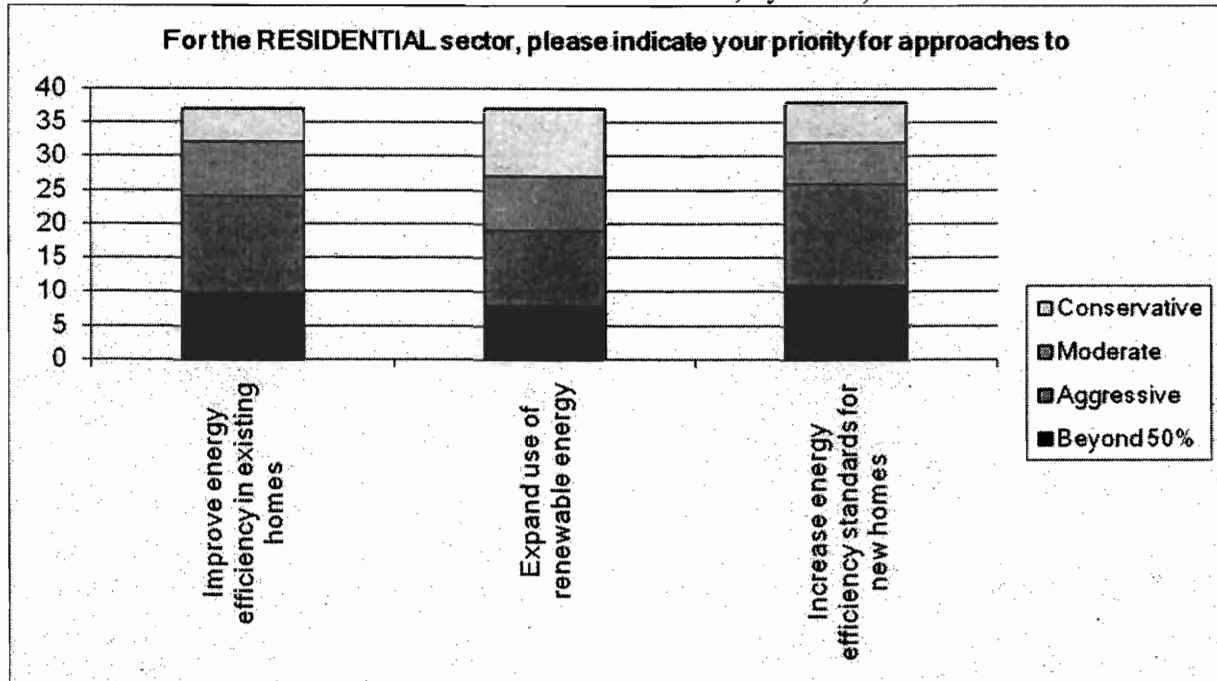
Chart 2:



Comments:

1. You MUST and can implement simple measures to reduce emissions in town (since you have already made the decision to do so). Timing stop lights is one simple way to do so. It is ridiculous to get off I-40 and have to stop 12 times on MLK before you get to town, for one example.
2. You need to define what is considered a Gas House Gas - carbon dioxide is a natural element and increases only after global temperature spikes.
3. Transportation's contribution to emissions is largely a product of our car-dependent land use.
4. The Greenhouse Gas Emissions Inventory and Forecast for Carrboro + Chapel Hill is skewed. If the format is revised it becomes clear that the Transportation component includes city vehicles and busses and they make up a large part of that item. Also, the Institutional component has the University, which is the largest carbon emitter in the county and is owned by the State and therefore is NOT an Private entity and can be influenced more easily by legislation. We do NOT HAVE ANY significant industry, which is why this aspect is so low a percentage, and much of the Transportation is "pass-through" which we cannot directly influence. These items skew the percentages. Saying it again: the Public sector is IN FACT, the largest polluter.
5. Orange County is too small to continue to rely on automobile mobility. With Carolina North, the number of cars on our roads will increase which will eventually cost local government more money. The most efficient way Orange County can cut down on emissions is by extending public transportation to all of the County and increase its frequency. This should be and can be done within a year--even if you begin charging users a monthly rate.
6. This is a critical issue that needs to be tackled from all sides if we are to be successful.
7. Hard to say without a plan as to how to achieve
8. I really think "beyond 50%" in all areas, but I'm trying to be realistic. However, all sectors should welcome aggressive action because it means cost-savings, too.
9. This should be using a 2005 baseline.
10. The question misses the point. The massive emissions from the Transport sector reflects serious faults in our land use patterns. Land use is where Towns & County need to focus, because that's where we have the greatest leverage.
11. Why not put night lights on motion sensors instead of lighting up every school, government building and business all night long?
12. The effort needs to be focused on the best return for dollars spent. Private businesses are by their very nature more efficient than public entities. They pay for their energy costs directly. Residents need help because they have no technical expertise.
13. If we don't set the highest standards, we'll have no moral conscience
14. The White House doesn't recycle nor does any U.S. military base

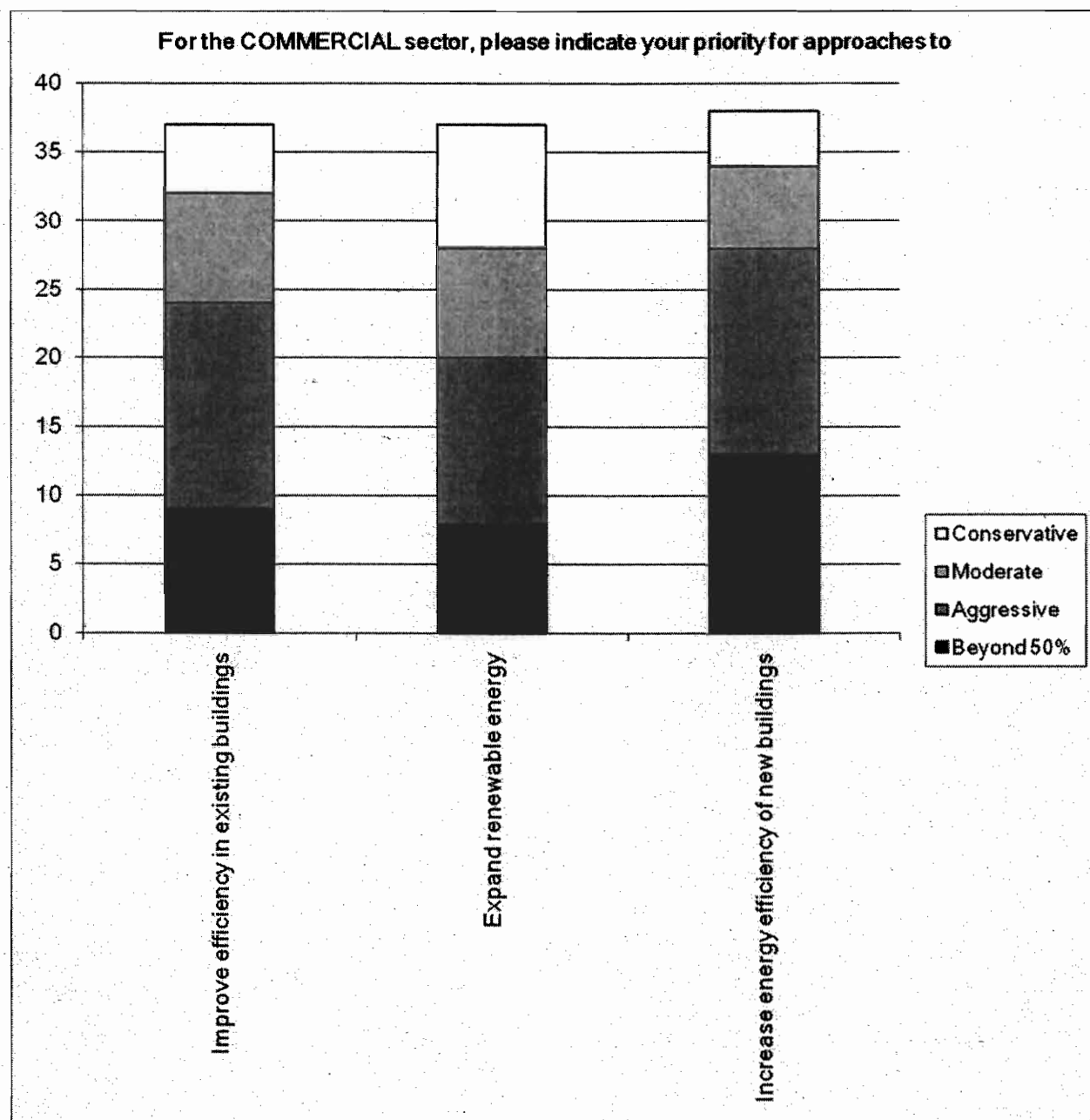
Chart 3: (Note that conservative =17% reduction, moderate=31% reduction, and aggressive = 50% reduction from "business as usual" emission levels, by 2030.)



Comments

1. Leave home owners alone, the cost of living in this town guarantees a Nirvana-like environment already. Normal people need to be able to live where they work to reduce emissions.
2. The green trend will pass, it's popular right now because people are STUPID.....
3. The only way to fairly influence this aspect is to give property tax credits to those who VOLUNTARILY install energy efficient features in their homes. We have a median home price in town of over \$500,000. We need to bring in LESS EXPENSIVE housing and this will not help.
4. Green power will never be a real factor. Too expensive. The state energy code already addresses new building efficiency well.
5. The current NC energy code is already good enough for new homes.
6. Consider "Cash for caulkers" program to train youth/anyone.
7. If we're building new homes, there is no reason they should not meet very high standards. Installation of new equipment on existing homes is better than the purchase of "green power", but is expensive and maybe not best bang for the buck.
8. There should be incentives to make this happen. Don't just create a new "tax".
9. Again - I'm going to harp on this: Our biggest problem is our energy-intensive land use patterns!
10. There is far more impact to be made thru existing home improvements than buying some sort of green power. The current energy code for new homes already addresses their energy use, no additional effort is justifiable.

Chart 4: (Note that conservative =17% reduction, moderate=31% reduction, and aggressive = 50% reduction from “business as usual” emission levels, by 2030.)

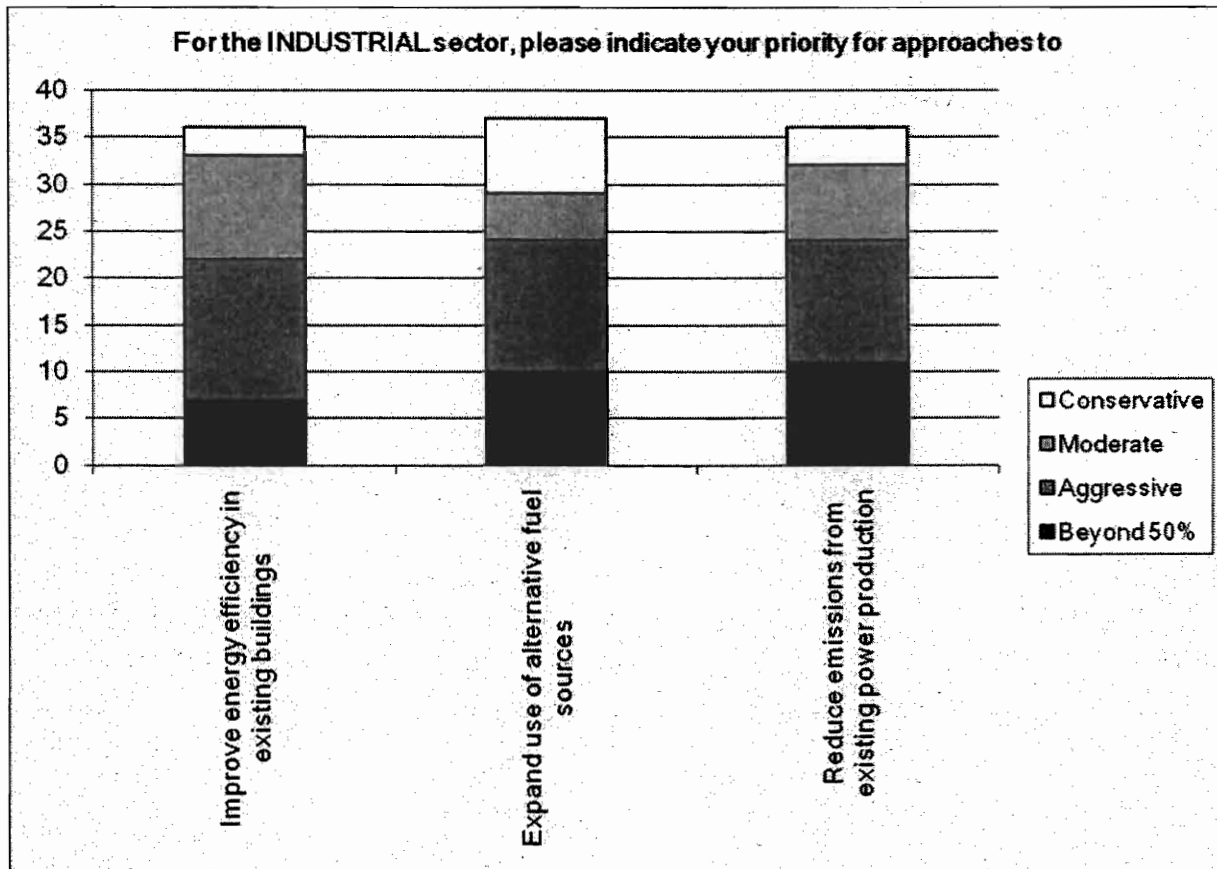


Comments

1. Provide incentives for industry, NOT mandates.
2. The only way to fairly influence this aspect is to give property tax credits to those who VOLUNTARILY install energy efficient features in their businesses. We need to make it more appealing to bring businesses into town, save driving to work elsewhere.

3. Green power will never be a real factor. Too expensive. The state energy code already addresses new building efficiency well.
4. The Energy Code already handles new building efficiency well.
5. Of course- the problem is always where is the money coming from?
6. Our zoning needs to concentrate higher-density residential uses around compact retail/employment/civic institution centers on transportation corridors and at transit hubs.
7. Same comments as residential apply.
8. We need tax incentives so that we don't lose local business and force residents to have to drive further for goods and services.

Chart 5: (Note that conservative =17% reduction, moderate=31% reduction, and aggressive = 50% reduction from "business as usual" emission levels, by 2030.)



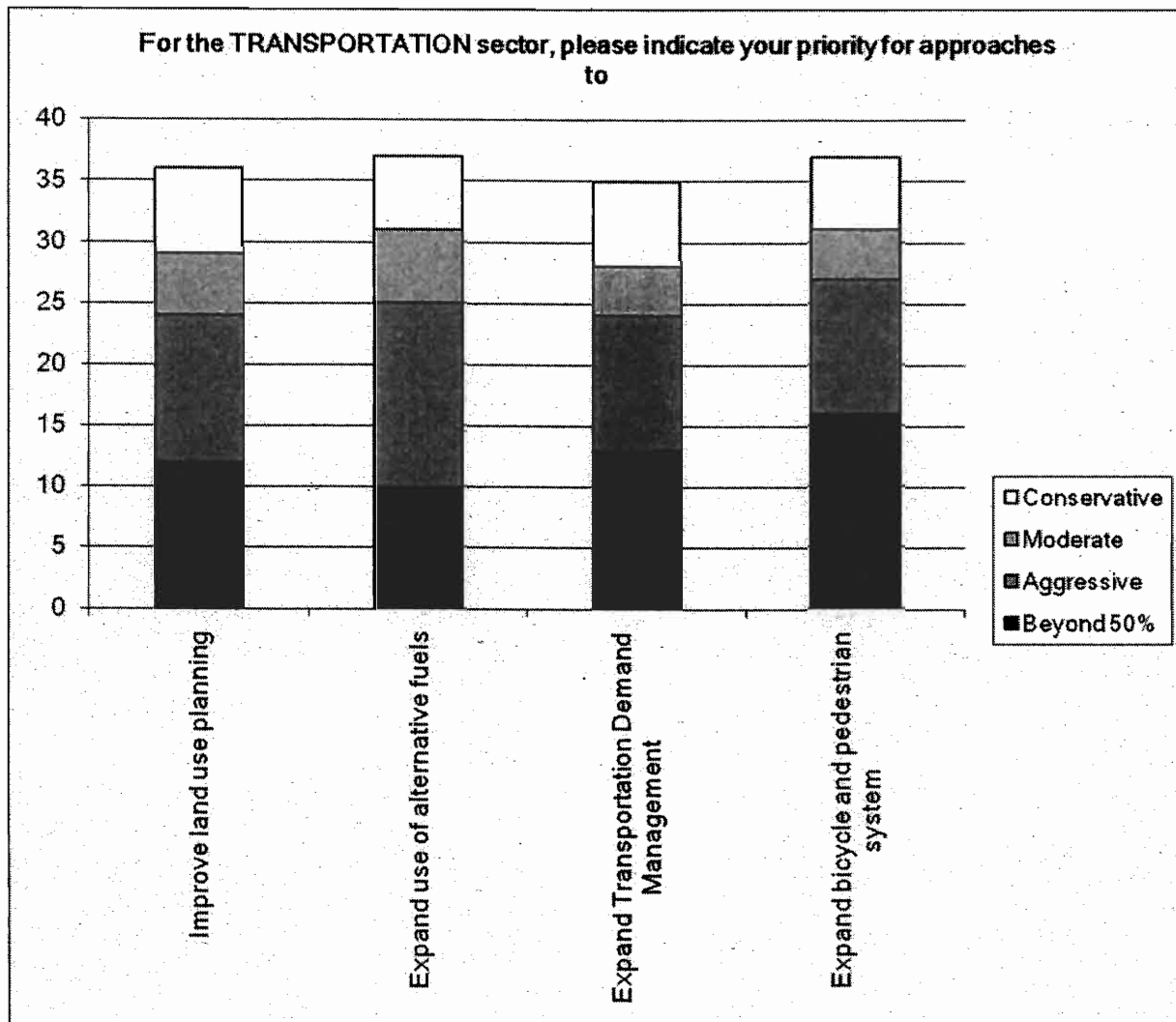
Comments:

1. Provide incentives for industry, NOT mandates.
2. We have very little industry. To increase the cost of industry will insure that we will have none!
3. The only way to fairly influence this aspect is to give property tax credits to those who VOLUNTARILY install energy efficient features in their businesses. We have no

significant industry. This is a red herring. We need to make it easier to bring industry into the town, save driving to work elsewhere.

4. Power plants already meet very stringent emissions standards. Alternative fuels are not a cost effective and make no sense technically.
5. Orange County's concept for the "Economic Development Districts" is grievously at odds with the need for all forms of development to be fully mixed use, so that people can walk/bike/bus to work, play & learn.
6. The most cost effective thing to do is work on existing buildings. The market will dictate use of fuel, and the federal government already limits emissions pretty well.
7. We need tax incentives so that we don't lose local business and force residents to have to drive further for goods and services
8. We should not reproduce strong chemicals like fungicide that will consume existing "shelf-life products" and cause lethal odors.

Chart 6: (Note that conservative =17% reduction, moderate=31% reduction, and aggressive = 50% reduction from "business as usual" emission levels, by 2030.)

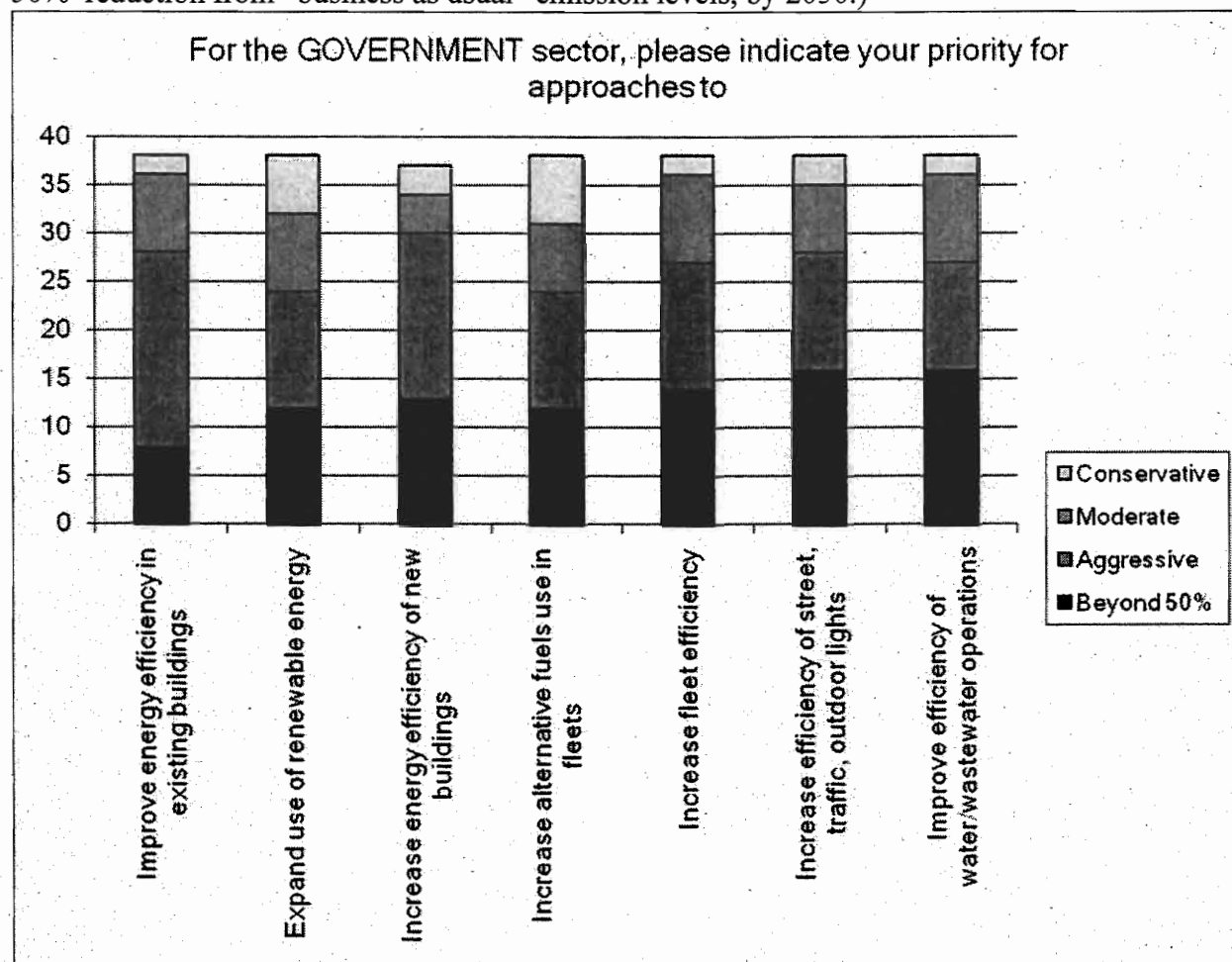


Comments:

1. Install sidewalks everywhere so pedestrians don't get hit on roadways so much. Ticket those walking in the street where there are sidewalks. TIME & COORDINATE ALL STOP LIGHTS TO REDUCE IDLE TIME.
2. It would probably be useful to explain what kinds of TDM are under consideration.
3. The real culprit in this arena is the Government: still insisting on making light rail "pay for itself" is a non-starter. Same with expanded bus service. If you do not build the networks we WILL have business as usual. And growth patterns WILL NOT change.
4. Alternative fuels and bicycling are "feel good" solutions with no real promise of an impact.
5. Alternative fuels will never be effective in making a big difference.
6. I do not know what TDM is. In Orange County, we have large potential for better bicycle and pedestrian facilities and could improve our public transportation system between towns/cities, and these things can be done NOW without waiting for the potential of alternative fuel vehicles.

7. Our car registration fees should be at least \$100 - \$200 higher, per year. This would enable us to build rail from UNC to Carolina North via Carrboro, add commuter rail service to Hillsborough, and expand buses throughout the county.
8. Since transportation is the biggest emitter by far, I think massive efforts should be undertaken here. And there is lots of room for improvement.
9. Provide more coordination among municipalities, from Greensboro to Raleigh to Sanford, to assure a more comprehensive and unified public transit system (trains, busses, and transportation corridor planning for business and residential development.
10. What 48% of emissions coming from transport tells me is we have disastrous land use patterns. Alternative fuels won't touch the energy-intensity of our land use. We need to stop encouraging the suburban model, and devise and implement a truly urban, walkable and transit-supportive model.
11. Alternative fuels such as biodiesel are not a long term solution and do not make a significant impact environmentally.
12. Implement State law at railroad crossings for pedestrians and cyclists.
13. Raise fuel prices to decrease cars on the road

Chart 7: (Note that conservative =17% reduction, moderate=31% reduction, and aggressive = 50% reduction from "business as usual" emission levels, by 2030.)



Comments:

1. Not major sweeping changes, but logical replacement over time.
2. Government should set an example for everyone
3. This is where the town has the greatest control. We are fooling ourselves by putting the Bus System in the "Transportation Category" and the University in the "Institutional Category".
4. Renewable energy and alternative fuels are a bad waste of money. Streetlights are not a big energy user. There is already a good energy code for new buildings.
5. Why can't we have wind turbines on tall buildings, hills, or at Hogan's farmland? Why can't we spearhead?
6. Alt fuels emphasis will not make a dent because biofuels cannot remotely replace fossil fuels in our county. Lyle Estill of Piedmont Biofuels will tell you this. Alternative fuels are good to explore, but are far less important than land use changes which lower the need for cars in the first place.
7. If government is going to set the bar it should be able to clear the bar.

8. This is a comment on #11 below: Absolute emissions reductions are meaningless at the local level and seeking them would be another excuse to gate the community. The idea of capping population is morally abhorant; we have already done ourselves considerable harm in the name of "carrying capacity," making Orange County and our towns unaffordable to a diverse population.
9. The biggest impact can be made with legislation setting minimum efficiency levels.

Chart 8

Indicate your recommendation for the per capita % reduction in emissions for 2015-2030

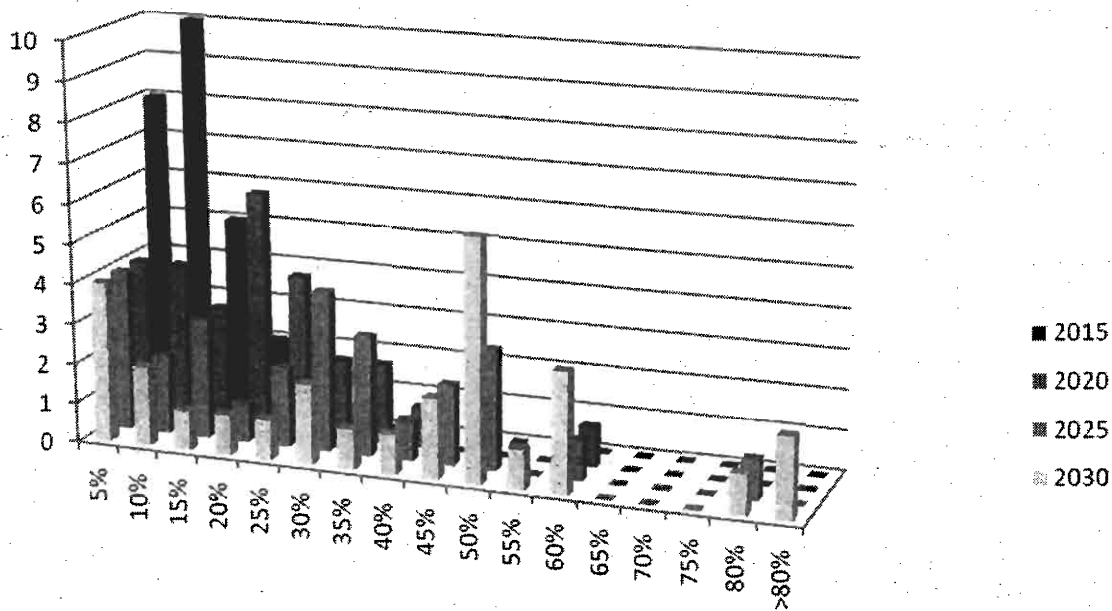
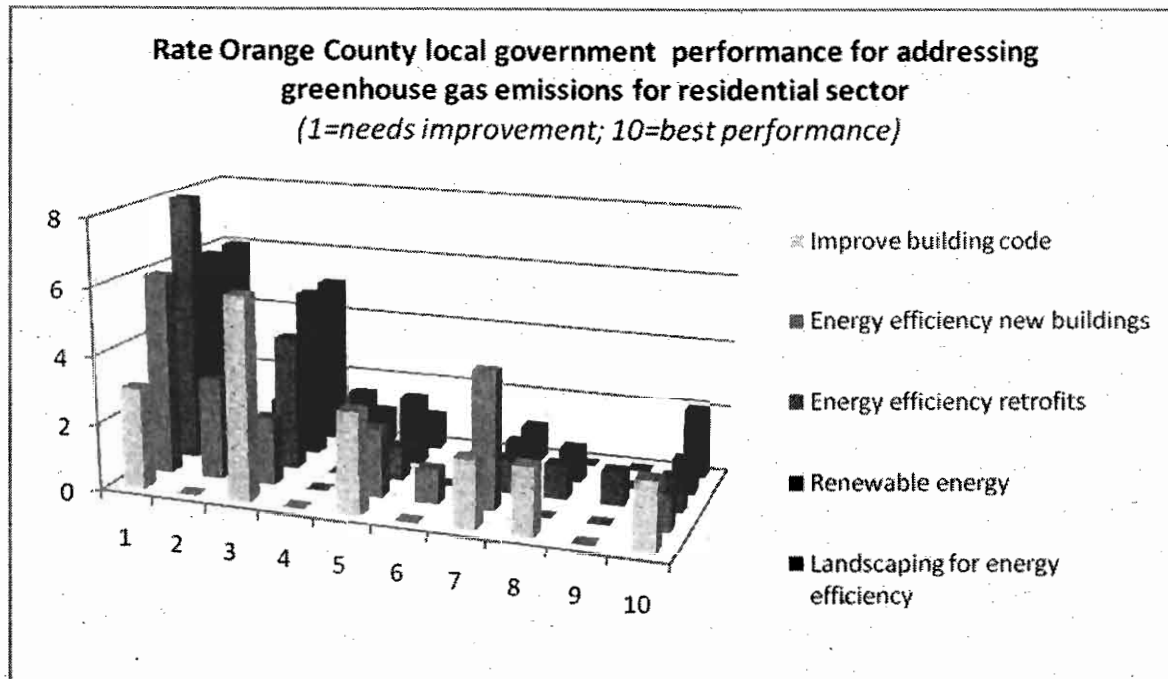


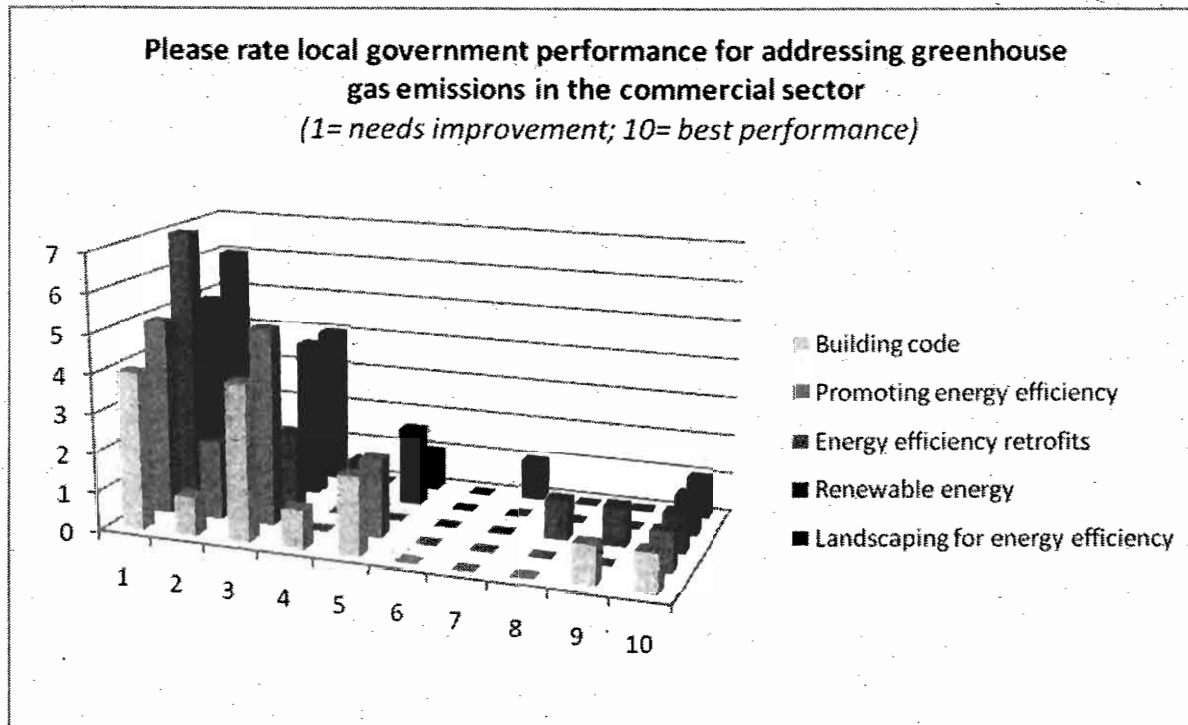
Chart 9



Comments

1. I have no knowledge of this area.
2. Government has no legal or moral obligation to be involved in this discussion due to a lack of scientific or engineering knowledge.
3. Standards must be improved, and posted in public arenas. But this is a "drop in the bucket" compared to UNC's use of coal and the Town's reliance on a petroleum-based bus fleet.
4. I gave "1"s to the areas that are worth pursuing and 10's to the areas that are not.
5. Uncertain--needs better dissemination of information to the public. Who oversees this?
6. I am not familiar enough with current efforts to effectively rate these
7. People will be more likely to accept changes in equipment and behavior when they understand the costs. OC should have better "cost - benefit of energy / water conservation projects, etc" maybe some incentives like discounts on the watt meters.
8. Am not a builder, so don't understand this. I am a renter.
9. The new State Energy Code is the only thing that even BEGINS to address this problem.
10. I think we've hardly scratched the surface, considering how far we have to go... I don't see evidence of a truly active, concerted, co-ordinated effort.
11. It is sad that, e.g. the Town of Chapel Hill rejected Greenbridge's offer to do residential efficiency measures. There is too much focus on "pop" solutions and not enough on well grounded technically and economically sensible solutions.

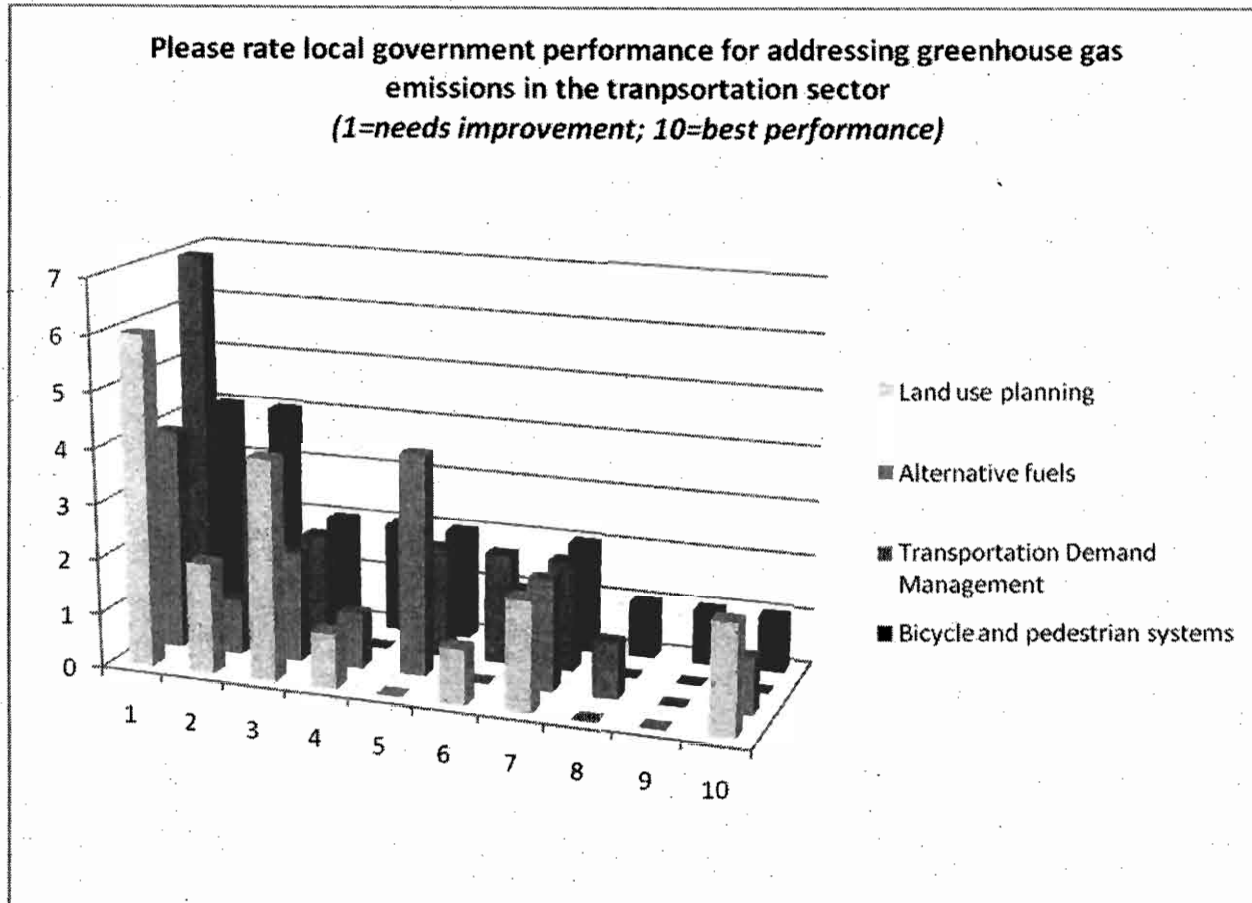
Chart 10



Comments

1. Same as above
2. The Planning Board has offered a list of items, for over a year, that can significantly improve the Town's performance. This list has been sanctioned by the US Green Building Council.
3. I gave "1"s to the areas that are worth pursuing and 10's to the areas that are not.
4. ?
5. We certainly need to keep mature trees, don't ever cut those down.
6. I am an architect and I do not see these issues addressed beyond the dictates of the Building Code minimum standards.
7. Again: I see no evidence of a truly active, concerted, co-ordinated effort reflecting the urgency of the challenge to reduce emissions.
8. The efficiency of new construction is determined at a State, not local level.

Chart 11

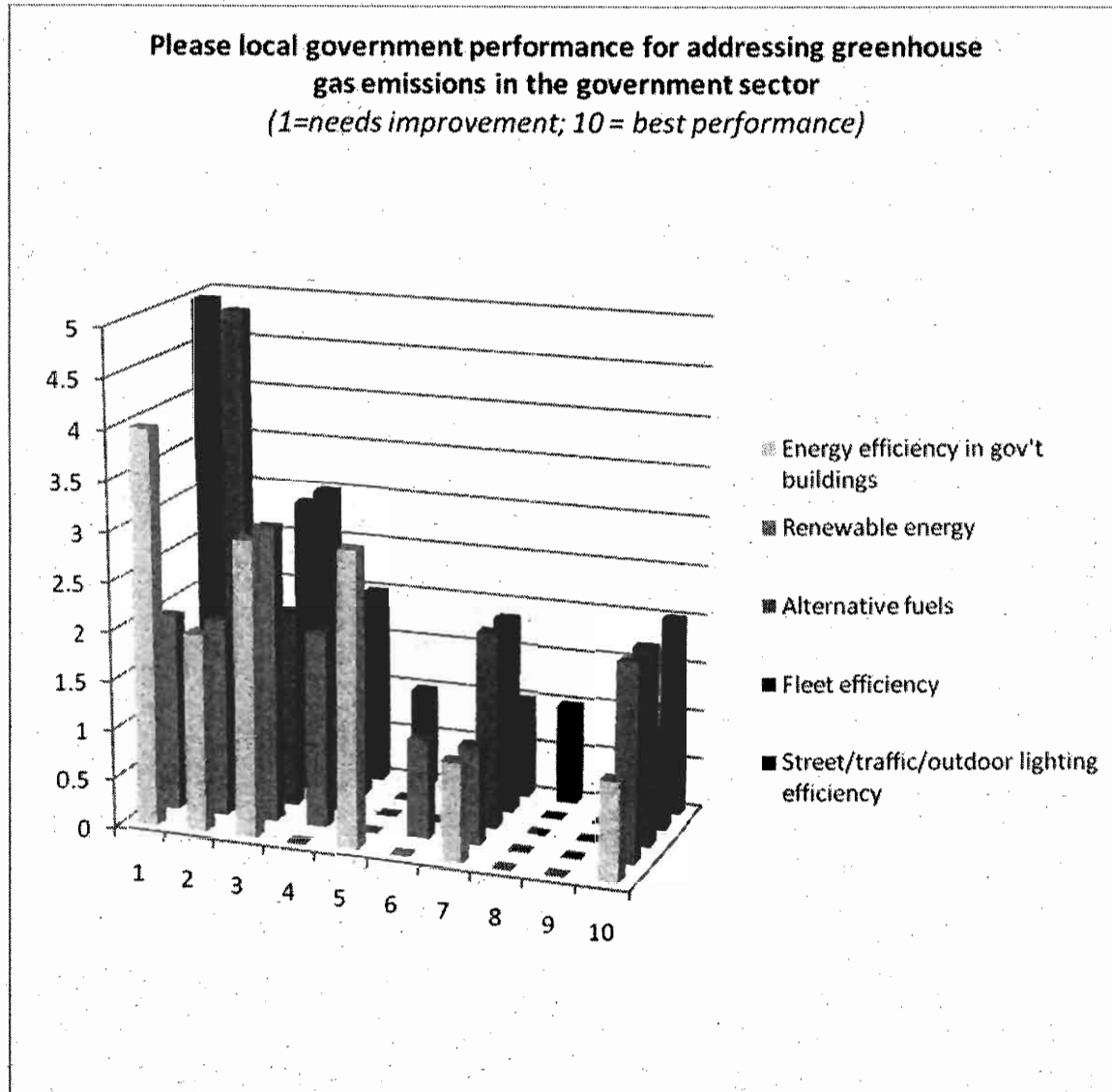


Comments:

1. Same as above
2. Red herring issues. The State Transportation Plans (2035) have basically ignored Orange County, treating it as a pass-through area for highways, and bypassing it for light rail.
3. I gave "1"s to the areas that are worth pursuing and 10's to the areas that are not.
4. Less focus on bicycle and pedestrian systems because I have to drive into towns--so those perks do not benefit me. We need buses.
5. ?
6. Chapel Hill is doing better on land use than others, but Carrboro still puts suburban aesthetic preferences above GHG concerns when push comes to shove. Commitment to public transportation and cycling and both towns is commendable. But sooner or later, they have to stop subsidizing automobiles via parking requirements to make a real difference
7. I feel strongly that the strongest effort needs to be made in transportation, so I'd say "needs improvement" for all areas, but I'm not knowledgeable enough about what's already being done.
8. I really want to emphasize that this county needs an extensive bike/walking system. Building it will create some jobs too.

9. One of the greatest problems is the "gridlock effect" for vehicles that travel to and through Carrboro. This has not begun to be addressed: only one route, north-south and east west, through town, and poorly timed traffic signals. Just wait and see what Carolina North does to this!
10. Repeating: our current land use planning policies, Towns' & County's, are a disaster. We're still fostering a car-dependent suburban outcome. Some glimmers in TDM and bike/ped, but not in any way focused on achieving a specific, measurable emissions reduction outcomes by specific dates.

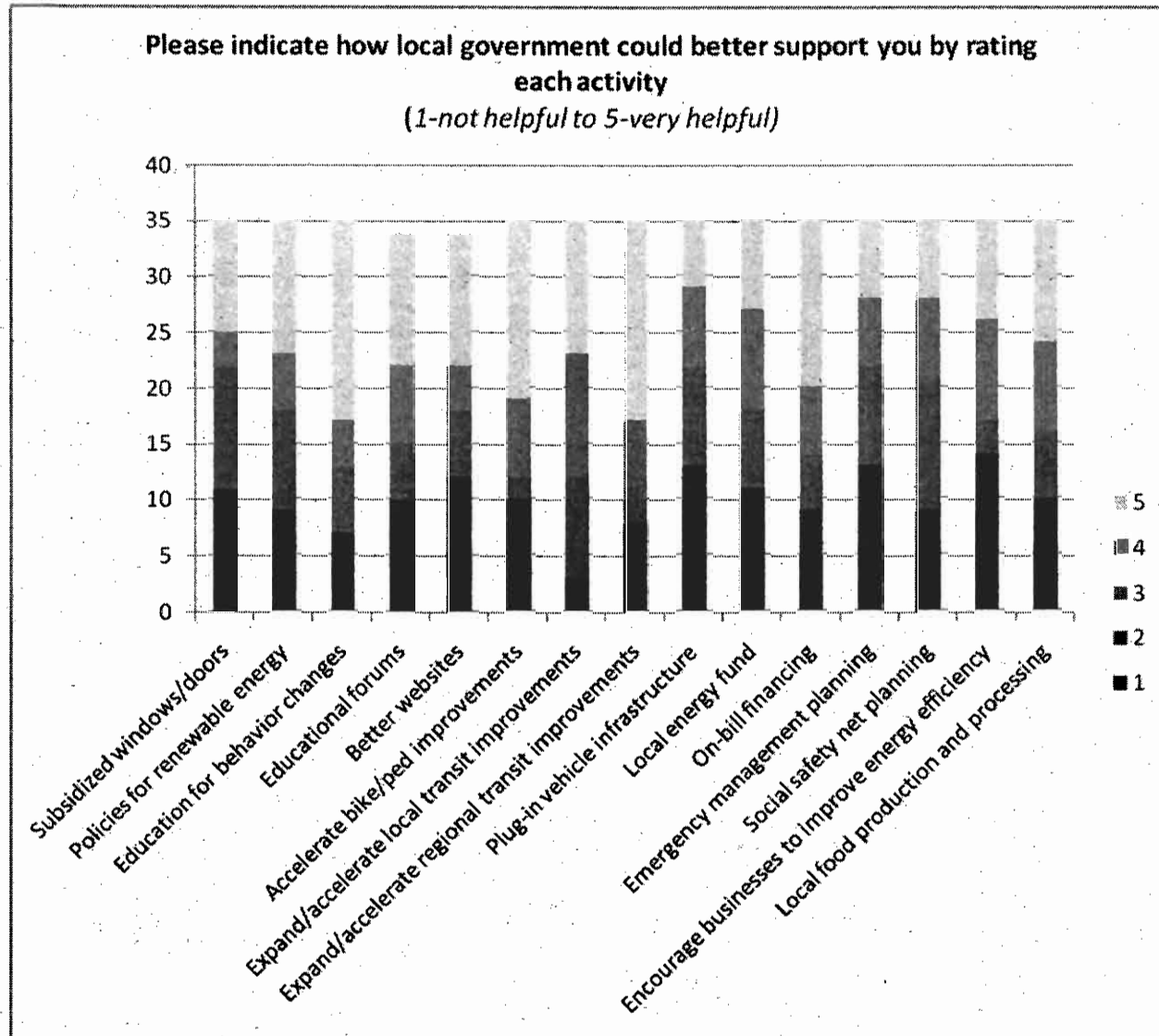
Chart 12



Comments

1. No data to support that Orange County local government has done anything to address this GHG scam.
2. The new outdoor lighting ordinance ignores Street Lighting, which has a SIGNIFICANTLY greater energy footprint than the private sector.
3. I gave "1"s to the areas that are worth pursuing and 10's to the areas that are not.
4. ?
5. I don't really know.
6. Carrboro's Northern Fire Station and the Chapel Hill-Carrboro Schools seem to be heading in the right direction, but even High Performance buildings can use too much material (witness the new elementary school on Eubanks).
7. There is some marginal effort I'm aware of. Again, the problem is that none of these efforts are part of an organized strategy to achieve measurable outcomes by specific dates.
8. There needs to be improvement from a cost/benefit standpoint- the limited dollars available are not being spent wisely.

Chart 13



Comments:

1. If changes are needed it will be driven by consumers and private sector; government has no expertise in these areas.
2. Almost all of the items above will have relatively insignificant impacts EXCEPT anything related to improving public transportation. MISSING from this list: politically taking the University to task for its carbon use (don't just pat it on the back and say "Great! You have an energy plan". Look more closely and see what is missing: no plan to replace the coal-fired cogen facility fuel source, even by 2035; Carolina North is actively ignoring the last best hope of Carrboro to reduce automobile impact by turning its back on the existing rail line as an opportunity for light or medium rail; The University and the Hospital believe they should have an equal say with the people's elected governments over the future of planning in our communities but they are, in fact the problem that must be regulated...they have vested interests that run counter to those of the public...they are not going away, only growing larger...and most of their employees live outside of our area. There should be a housing tax and a highway tax on these entities, on a "PER CAPITA" basis, for each employee who does not live in the area covered by our public transportation system. This can help us provide moderate income housing and better local transportation. Also, they should be required to provide local moderate income housing for a percentage of employees in all new construction (either on the existing campuses or at Carolina North) whereas they are currently inclined toward the opposite direction.
3. Local food is not necessarily an energy saver, do your homework please. Government should not compete with local business by selling building products. Local government's best role is to educate the public about opportunities to save energy, but the education needs to be based on science and not "feel good" ideas.
4. Bikeways and alternative fuels are drops in the bucket. Need to focus on educating the public.
5. * for plug in and rating of 6. Please lead!
6. Home weatherization projects should be part of the list
7. Transportation, transportation, transportation!
8. NOTE: I rated these with respect to my personal household/business situation only (in case that was not what was expected)
9. Certainly need to do all the above.
10. Although all of the above have merit, in one form or another, the ones I have marked with a lower score have less to do with energy savings and more to do with humanitarian assistance.
11. Many excellent ideas. I put many at highest priority, because the outcome humanity faces if we don't turn global warming around is dire. I do not see electric vehicles as a meaningful solution. We need to focus on the demand side, achieving emissions reductions, not the supply side, trying to perpetuate a way of life that's really not sustainable.

Please provide additional comments for local government consideration related to climate protection. If the comments are addressed to a particular Orange County local government, please indicate which government.

1. These things are better handled in the private sector rather which deals with problems much more efficiently!
2. QUIT increasing the expense to live in this town. Use old-time logic to conserve. People who lived through the Great Depression, our grandparents, had the best ideas. Stop implementing half-measures that waste money like electric boards to announce when buses are coming that have wrong information and don't work. The paper schedules can be posted just fine!! Chapel Hill keeps trying to act all big-city and just consistently gets it all wrong in an expensive kind of way.
3. Total waste of time and money as government can only be counted on to create a system which penalize one segment of the population to placate another segment; mostly to insure their own re-election. This guarantees that government will address a non-existent problem and will increase taxation levels, cost of living and discourage business development; however that is the purpose of this survey.
4. Do not be led astray by the green bull crap these days. Alternative power has been available for YEARS, it's just that the public is catching on now, and everyone thinks it's trendy as hell, Could we use less foreign oil?? Yes, by all means, but there are those faggots out there trying to make a buck of the green revolution.....don't be a sucker.....use common sense..... although it isn't that common..... this should have been done years ago.... Thanx
5. This survey got pretty complicated at the end. Like the percentage reductions - are we talking percentage points? And calculated from when - the previous year or today?
6. Please read carefully the comments above. Thank you for your interest. Let us make things happen!
7. This survey is terribly biased towards the belief that climate change is something we can actually impact. This is not a given as the survey implies. Local government, if they really want to make a difference, needs to educate folks about simple and cost effective ways to save energy. All recommendations should be thoroughly researched and reviewed by technical professionals before publication. There should be a simple payback in all recommendations that makes economic sense to the person spending the money. Otherwise, this will be a big waste of time and taxpayer money.
8. Chapel Hill has to take the bus system out of the University's hands--even if it costs the public a monthly fee. Most people in this area will give up one (a) car if they could pay a monthly fee and have all-access to public transportation.
9. I do not believe in Global Warming, Climate Change or whatever you call it. I am a professional engineer and believe strongly that the best role for our government is to educate the public about how to save energy. The government has no place selling windows etc. in competition with private businesses.
10. Why can't we be putting solar panels on every available rooftop (at least government rooftops)? Why do government officials try to placate everybody and less gets done? I want you to lead strongly, get going, and help us pioneer into strong 50% reductions!!!

(Aim highest because meeting goals is so difficult). I also favor tax incentives for people to have fewer kids. Educate Latinos on this, too. PLEASE FOCUS ON RETROFITTING THE EXISTING BUILDINGS-THESE ARE THE ENERGY HOGS! I WANT YOU TO BE AGGRESSIVE IN INSURING THAT CHANGES ARE MADE!

11. In the transportation sector, working between governments is critical, since so many citizens live, work, and shop in different government jurisdictions. A weak link will make it difficult for people to use alternatives, even if the other links are all strong.
12. There should be an effort to encourage homeowners to assess a home's energy footprint at the time of purchase, just like a radon test or home inspection. If homeowners are aware of the service they will likely request it and it will encourage sellers to improve their homes in order to gain a competitive advantage.
13. I rated nothing a 5 in question 17 because you left off the most important one that dwarfs all others- supporting compact, mixed use, walkable DENSER development in our towns. (or identifying new locations for new towns or development nodes in the county, perhaps at the EDDs) Transportation is literally HALF of the GHG total, and it is the biggest part of GHG emissions because of suburban land use planning that has been the norm in the USA for years. If a GHG plan for Orange County does not have a strong land use component identifying where compact, walkable, green, parking-limited, vertically-mixed use development at densities of 15 units/acre and up should go, then the plan will not come close to reaching its goals. In the 2030 to 2050 time horizon, compared to land use, everything else is tinkering around the edges.
14. As I said above, since transportation is the greatest emitter, there are the greatest opportunities for reduction in those areas. I am interested in helping on any project that has as its goal reducing the number of single-occupancy private vehicle miles being driven (public transit improvements, ride-sharing, improvements for bicycles and pedestrians, telecommuting, etc.). I was unsure how to interpret question 12. Here's what my answer was intended to mean: reduce emissions by 5% of 2005 levels by 2015, an additional 20% of 2005 levels by 2020, an additional 15% by 2025, and an additional 10% by 2030, for a total reduction of 50% of 2005 per capita levels by the year 2030. My reasoning: reduce by 34% to counteract the 34% population growth, plus 10% to bring us down from the current 387 ppm CO2 to the target of 350 ppm, plus 6% to round off to 50% and to account for the fact that less affluent, less progressive communities will not be able to reduce as much as we can.
15. Between some of the above and possibly some additional mechanisms, I would like to see something setup where personal investments can be made in these changes. For instance if the legal structure was setup for a certain amount of money to be put in for a reasonable rate of return on either regular investment funds or even retirement account funds. I feel that there is still large amounts of capital out there in our current population that are either not invested or invested externally. Having things like legal templates setup and having them pre-vetted with the appropriate authorities would go a long way toward making the citizens money much more readily available.
16. Carrboro should look closely at the LEED-based (and authorized!) energy guidelines the Planning Board is promoting. Chapel Hill and Carrboro must get their act together in terms of connecting roads and transprtion bottlenecks.

17. Somehow we have to interrupt the business-as-usual manner in which we develop, devise a new urban vision, and quickly make the zoning & ordinance changes that take us toward the desired outcome. Certainly put a moratorium in place, but this time avoid the lamentable way we've approached Carrboro's Northern Study area, for instance. This work has to take precedence as far as the allocation of Staff resources. The infernal dithering I've witnessed since becoming involved in Carrboro's Downtown Charrette has to be replaced by a truly efficient process to bring about meaningful change rapidly. We simply don't have time, given we are already over 350ppm of atmospheric carbon dioxide, to approach this so slowly.
18. Again- stop lighting empty buildings at night. Make it possible and safe for people to bicycle and use scooters on our roads. Both will save on emissions, and scooters are unsafe on our narrower roads. There's no point in getting all excited over electric cars until we know how the electricity is made. If it's just from burning coal, I'm not seeing the upside here. Or is that part of what one means by the infrastructure- a carbon neutral form of electricity will also be part of the solution? It might rank higher if it were a yes on that question.
19. These efforts needs to be led by a person with the technical education necessary to make the right decisions based on established engineering principles, rather than on the popularity of an idea.
20. I firmly believe we need to start by looking at our own local Public Works, Fire, Police and where they need to be setting examples like running vehicles and the choices of vehicles and equipment.

Appendix B

Steve Morgan, Clean Energy Solutions

Clean Energy Solutions, Inc. serves municipalities with the design and early implementation of comprehensive, neighborhood-based energy efficiency, renewables and water conservation initiatives promising significant reductions in carbon footprints, electricity demand, and energy use across all residential and commercial/industrial sectors. CESI structures financing programs to invest in customer buildings, repaying debt from utility savings; designs contractor implementation programs to match customer needs to one-stop vendor capabilities; aggregates utility incentives, federal and state grants, renewable energy credits, and pollution payments; advises the creation of community-based marketing campaigns; and establishes monitoring and verification protocols to track progress. A hallmark of CESI's practice is the design and implementation of programs that leverage public funds with stimulus dollars and private capital. CESI has also worked for foundations, state energy and renewable technology organizations, economic development agencies and nonprofit organizations to design marketing, financing, and services delivery programs for municipalities and regions.

Steve Morgan is President of Clean Energy Solutions, Inc., Mr. Morgan has been working to launch the Cambridge Energy Alliance, an unprecedented energy efficiency and renewable's campaign serving all customer sectors. Mr. Morgan has been instrumental in devising the overall program design, determining a market plan, overseeing technical contractors, and assisting the financing arranging for the new venture, a partnership between the City of Cambridge and the Kendall Foundation. Prior to joining CESI in the spring of 2007, Mr. Morgan was Vice-President of AMERESCO, and for sixteen years led the nation's largest energy services company division solely dedicated to serving multifamily buildings. He was responsible for energy efficiency investments which have surpassed \$175 million in the past ten years. The division serves public housing authorities, assisted and conventional housing clients, housing and energy agencies, and electric and gas utilities.

Formerly Board Treasurer of the National Association of Energy Services Companies (NAESCO) and presently on the American Council for an Energy Efficient Economy (ACEEE) Board of Directors, Mr. Morgan brings public and assisted housing policy, financing, and technical research issues before national decision-makers for the benefit of multifamily clients. Mr. Morgan also enjoys a national reputation in electric and gas utility energy efficiency program design and early implementation assistance. He has been an author, featured speaker and panelist at more than two dozen national energy forums over the past 30 years. He has testified before Congressional Subcommittees on renewable energy issues. He has provided energy efficiency consulting services to Fannie Mae, the Ford Foundation, the Department of Housing and Urban Development (HUD), the U.S. Department of Energy (DOE), Legal Aid offices, and both public and investor-owned utilities. Mr. Morgan has been the principal author and champion of Congressional legislative initiatives addressing energy efficiency in public housing over the past decade, and was primarily responsible for the energy efficiency measures addressing public housing in the 2005 Energy Policy Act. Mr. Morgan holds a Bachelors and a Masters in Education degrees from Harvard University ; and a Ph.D in Policy, Planning and Administration from Brandeis University.