Connecticut Climate Change

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Climate Change Public Stakeholder Meeting,
GHG Reductions from Non-Transportation Fossil Fuels
January 24, 2008
Middlesex Community College

Summary of Breakout Session Discussion

Question A: What are some major programs and strategies that can significantly mitigate the challenges of both climate change and peak oil?

Question B: What strategies can educate and motivate behavioral changes in residential and business customers to reduce reliance/use of fossil fuels?

Question C: What policies, strategies, and incentives would accelerate the adoption of alternative technologies and/or fuels, such as combined heat and power, geothermal, solar thermal, and biofuels?

The following suggestions address the questions above:

- Acknowledge the need for many different solutions.
- Biofuel: Stage 1 = corn ethanol. Stage 2 = switch grass, wood chips, non-food sources, etc. Prices need to go down.
- Biofuels in state buildings: Pilot 2% of state buildings, then increase, and then expand to fleets.
- Virgin biofuels are not sustainable. There is too much dependence on oil and crops. This creates a food issue.
- Smaller, decentralized, clean power production.
- Increase access to federal lands to produce more oil and natural gas.
- Need a combination of solutions within existing system and system changes. Best bang for your buck. (i.e., biofuels with geothermal, solar, mass transit, etc.).
- Cities should be redesigned to reduce the need for cars. Sustainable communities and mass transportation.
- Focus on conservation, changing lifestyles, less consumption, and education to allow for slow adjustment to peak oil.
- Need a wake up call – a truth of what lies ahead. Redesign toward sustainability.

- Educate on climate change and peak oil simultaneously. People don't understand that they are interrelated. If you don't link peak oil and climate, some people think we have decades.
- The debate is on blending oils, but will take 20-30 years to 'retool', so need to start now.
- We need to change a mindset. That means education from K level all the way up. Young people need to know why and how important this is. Teachers need to get on board with conservation and recycling. There isn't much time. Start with the young habits like teaching seatbelts and not to smoke.
- Europe – tax engine size (i.e., surtax McMansions).
- Carbon tax and rebates create tax neutrality – in addition to cap & trade system.
- If we are really taking the long view, we need to replace fossil fuels, not just make them more efficient. We need to move to solar, geothermal, etc. on a crash scale. We are tiptoeing now.
- Set back thermostats.
- Reallocate CEF to fund more renewable energy development than energy efficiency. Give homeowners more incentive for renewable energy options at home.
- For home energy audits, include analysis of the best system, size, etc. for home heating. Currently, audits don't address oil directly. So, expand home energy audit program to be more comprehensive and make more audits available. If you pay $200-$300 for an audit, it should be credited to your bill.
- Eliminate the lack of understanding of code to fuel etc.
- Bio production by local and state fire marshals.
- Each building should be responsible for the majority of electricity and heat production, while still connected to the grid. Get away from centralized energy production. Alternative energy sources are needed.
- Oil heat energy audits should be free.
- There should be a Winter Saver Program like the Summer Saver Program.
- Encourage wave and water power energy (i.e., CT River underwater turbine, Long Island/Fisher Island Sound, East River NYC demo project).
- Unlock whatever legislative hurdles are in the way of allowing low speed electric vehicles (<25 MPH) to operate over public streets in urban areas.
- Model zoning codes.
- Incentivize the development of smaller, attached dwelling type households/homes.
- Incentivize municipalities to adopt growth that allows compact/walkable development, especially near transit.
- Provide energy training at the VO-tech schools.
- Geothermal replacing and supplementing oil.
- Alternative fuels: biodiesel, use of waste, cooking oil, yellow tallow, algae, and green fuels.
- Subsidize through CEF.
- Fund oil replacement system programs.
- Get away from central energy production.

- Improve building inspections with meeting codes and enforcing them.
- Pilot Projects: 1) electricity storage – tap off peak grid (12PM-5AM) 2) NUCRO – renewable projects, wind like PV 15-20 year commercial sector.
- Devise a game when players are challenged to provide X amount to reach energy/electricity goals. Winner has greatest reduction in CO2.
- Plug-in hybrids, fueled by wind.
- Public transportation incentives.
- Recent action by Travelers with charging for parking is a good example.
- Carbon footprints should be put on products, easily understandable, especially in grocery stores. This could be easily regulated with state produced products.
- Municipal-level incentives for residents who "do the right thing" (i.e., property tax breaks, free parking). How can towns make up for lost revenue?
- What is more effective: carrots (incentives) or sticks (laws/regulation)?
- Carbon neutral roadmap for buildings. State-funded first, building codes second.
- Architecture 2030 – carbon neutral, need training, education, efficiency.
- Educate that money spent on fossil fuels is money lost from CT.
- Programs for oil users to improve efficiency.
- Enforce anti-idling laws. It is pure waste.
- Most oil consumption is for transportation, so change MPG standards. Anti-sprawl. SmartGrowth.
- Not only a product change and adoption, but a behavioral change also needs to be addressed.
- Carrier – since 1998, consumption is flat and revenues have doubled. Should the government take on a more Corporate America mentality? Do more with less?
- A goal needs to be established.
- Further encourage sustainable communities.
- Need to establish appropriate (different) programs/strategies for various sectors.
- Educate at many levels: 1) State to consumer 2) Educators.
- State/federal carbon disclosure requirement (various images (Earth)).
- Inform, educate, incentivize – long term vs. short term.
- Refer from experts.
- Advertisements.
- Energy audit.
- Inteledyne device on boilers should be $350-$400 savings.
- Offer low-interest loans.
- Cost = motivation.
- Rebate/refund if reduce fossil fuels.
- Inequity (Wallingford) with collecting mill rate across the state.
- CT Municipal Energy Efficiency Corporation.
- Educate on hot water waste.
- Energy tax.
- Less carrots, more sticks.
- Incentives and disincentives for using public transportation.

- Public education about oil.
- Need to make people more aware of existing renewable energy and energy efficiency incentives and programs. Give free energy efficiency audits for oil heated homes.
- Create something like the "Green Levittown" Program. (www.greenlevittown.com, see Kasey Jacobs at kjacobs@citizenscampaign.org, 203-785-9080.
- Energy audits should be free or at a reduced price.
- Low-interest loans should be offered for changes in homes
- Business/NGO/town partnerships.
- C.R.O.P It - solutions acronym for public and businesses. (Alison Garmet's idea - see Kasey Jacbos).
- Decrease vehicle idling (PM and pollution).
- Employer incentives.
- Education.
- New technologies for home heating.
- Website for homeowners to calculate energy efficiency is needed.
- Building cleaning should take place during normal business hours.
- Publicize free energy audits.
- Increase property tax on fuel inefficient vehicles and reduce tax on efficient ones.
- Move from pull to push - find problems and fix them.
- Low income energy assistance should be spent on energy efficiency instead of fuel assistance.
- Residential: Price is the #1 issue. There is little interest in environmental service.
- Need a cost and availability shock treatment.
- Practical applications are needed with efficiency and ROI.
- Renewable options are needed with residential and commercial applications.
- Cap & Trade and RGGI.
- Need to simplify choices and merge isolated ideas/technologies. Need one "clearing house" for information and education. (Hotline).
- $200 energy audits for oil heat users.
- It is difficult to educate people on complex issues, so do it FOR the people. Go door-to-door.
- Pay-as-you-go plans.
- Tax fossil fuel use to motivate.
- Hotline education.
- Promote the reduction of emissions.
- Fitch Fuel Catalyst ($200 marked up).
- Low income housing should be supported by the Federal Government.
- Get rid of free state parking – incentivize state workers to drive 4 people to a car.
- Ask academic experts.
- Hire advertising experts.
- Better info – C calculator.
- Save money, save planet.

- Use You Tube.
- Energy help system – one stop shopping for Smart Living/utility programs, Institute for Sustainable Energy, tools, etc.
- $ - put PV systems into property tax.
- Info on conservation loan program.
- Community energy challenges – like summer every savers in towns, student challenges, compete to use less, reward with $ and building upgrades, recognition; metrics – measure progress, mayors challenge, use churches and non profits.
- Require energy audit any time home changes ownership.
- Home Energy Solutions – tell about all technologies available.
- Awareness – no sales tax on oil heat since 2005.
- How to get info to people buying from 600 independent members (oil) – run ½ day certifications.
- Education builders and installers to use higher efficiency – CTGBC, International Homebuilders Assoc. – give incentives to builders.
- www.thestoryofstuff.org - educational tool.
- Start education at elementary schools, Focus the Nation, full teach ins, outreach through community services.
- Big business products – life cycle impacts.
- Small business (Alchemy Juice Bar) – workshops, films, theater, explain practices to customers.
- Fuel companies need to promote alt fuels.
- Banks offer lower interest rates, give knowledge to property value.
- Get oil companies to realize benefits of decreased price with increase sales instead of increased price with less sales.
- People and homeowners need resource to calculate and weigh home energy options.
- Set higher efficiency standards
- Tax incentives help. Rebates help. Motivate.
- Educate people through organizations vs individually.
- Education through bills, mailing, get people to visit CL&P etc websites.
- Use public access TV to educate.
- Use Facebook, MySpace, YouTube to reach kids, college students.
- Need to find ways to equip tools/machines/cars to be compatible with alt fuels.
- Billboards to educate.
- Decouple rates with power generation.
- Year-round financial incentive from CL&P.
- Town competition to cut energy use.
- Educate kids to reach 3 generations – school challenges, science curriculum.
- Carpolling and reduced idling – zero idling in schools
- Improve DEP websites.
- Benchmark and measure more.
- Incentivize high school students to take the bus or carpool.

- Centralize energy info for homeowners – university websites can develop this.
- Create green training programs for contractors to install solar energy panels, etc.
- Use the radio to educate on grants, loans, etc.
- Create movies and use local theaters to have tables of info.
- Create mandatory GHG caps and reductions through legislature.
- Create position at each college/university to create/lead Green programs and events.
- Need to eliminate poor choice options – cars, waste of energy…
- Increase reward for recycling
- Financial motivation and corporate motivation is most effective
- Make recycling easier – coordinate grocery stores, increase # of redemption centers, create jobs for people to pick it up
- Create more challenges and events like Solar Decathalon – educate youth, CT Energy Council for Teachers, eesmarts, PACE, Smart Living Center.
- CCEF expand efforts into solar heating.
- Better coordination needed on state level to promote policies and provide info.
- Find was to overcome NIMBYism.
- Reduce barriers to installing alt energy (e.g., electricity interconnect).
- Build clean energy recognition into town plans of conservation and development.
- Progressively increase energy tax – subsidize education, costs for low-income households.
- C4 staff doing well, but commissioners need to act. Need more cross agency talk.
- Make it a priority of Gov Rell.
- C4 agencies need to make climate change and energy FIRST priority.
- Metrics for goals, Climate Change Action Plan is hard to measure, systems level measurement.
- Policy to favor alt technologies for development advancement – geothermal, faster for developer through CEPA.
- Zoning and planning incentives for clean energy.
- Why can't the state expand CCEF to include all green options?
- New technology renewal demonstration projects.
- Reduce cost with benefits.
- . Need to coordinate all incentives – federal and state – one voice with One Thing
- Foster technology development on a scale that makes a difference and people can use.
- Need pilot projects for homes, industry, and commercial.
- Biofuel mix and regulation of products – as commodity then regulated veggie waste oil, combination oils, home heating, vehicles).
- Reduce carbon in biofuels (palm oil too much carbon).
- Examples exist – see Lester Brown's book B3.0.
- Oil independence programs – gas tax, energy tax, taxes to help with retrofitting homes/cars

- Government working to enforce changes and behavior with energy tax increase, money for fuels are cheap.
- State needs to do more to educate on climate change.
- IPCA – exciting programs, legislators are not aware of what exist or they discontinue funding.
- Are the low-income programs effective? Can you expand beyond with incentives and technology?
- CA has good examples.
- Add wind to the question.
- Wedge theory – Princeton University.
- What is the state priority?
- Lack of coordinated policy.
- Need clear guidelines on future growth at municipal level, energy level, state level.
- Economic benefit and finance is the only way forward. C&I need to be involved.
- Creation of Clean Energy Agency.
- Need incentives – reverse tax and penalty tax.
- Biofuels are not more efficient.
- Are small groups giving the right info – need one voice for info.
- Biofuels need to be low carbon, disclosure of carbon reductions using uniform life cycle analysis.
- Wholesale building and remodeling programs – incent solar and geothermal combos, solar heating.
- The most important strategy for increasing the use of alt technology is money, must be incentivized. Best long-term solution is solar/geothermal, not those highly lobbied albeit more efficient oil systems.
- Need educational efforts that are Dept of Education supported.
- Public display/tracking of business GHG emissions.
- Home Energy Solutions – incentive.
- Geothermal – need to describe benefits first, cost is discouraging, need financing incentives.
- Need consistency, promotion and more money because if programs are oversubscribed it hurts public perception.
- Incentives for cost adder to biofuels in heating oil.
- Property tax on vehicle efficiency.
- Federal tax incentives.
- ISE should develop web page for carbon foot print to assist in option analysis.
- Need consistent technical advice on what's best – seems to be more obstacles than opportunities.
- Develop a low carbon fuel standard.
- Biofuel access to fuel co-ops.
- Small business ombudsman for green retrofits.
- Low interest revolving loan fund to pay for upgrades.
- Grants and loans, consumption tax.

- Lack of small business support for alt energy – land use/zoning folks don't get it.
- Biofuels – need support from top, NIMBYism needs to change.
- State community colleges and university system – require to reduce GHG or regulate energy mix. Central planning for community colleges and universities.
- Incentives: low interest loans, revolving loan funds (like Stage II), state guarantee payback periods, grants to schools for energy/environmental coordinator positions.
- Info gateway – lots of good info out, but need to format for the masses – OneThing?