Group Discussion Summary

Thursday, September 11, 2008

Six discussion groups were tasked with envisioning a future Renewable Energy Community in Florida and identifying principles upon which that community would be based. The groups worked to identify principles in each of the following categories: Transportation, Buildings, Culture, Power, Agriculture/ Gardens/ Water, and Waste. The results are summarized below based on what was recorded on the flip charts of the various groups.

Transportation

Vehicle Strategies

- Buy plug-ins city wide
- Shared vehicles; Pay per use/common vehicles (what about accidents)
- Drive your suburban car to metro; Your electric (urban) vehicle is plugged in at the other end
- Electric vehicles
- Hybrid cars – incentive for rural – create hybrid parking spaces –
- Dedicated HOV lanes
- Charging Stations

Public Transportation Strategies

- Monorails to pods (above traffic)
- Identify infrastructure & routes for light rail & mass transportation
- Solar bus stops and make them more user friendly
- Survey for desirable times to use busses/mass transportation
- Light Rail Corridor by 2020:
    - Intra and Inter
    - Park & Ride Lot – shopping to have designated parking
    - I75-toll road - $5.00 = 1 exit, $3.00 = 2 exits, $1.00 = 3 exits. Proceeds to fund light rail
- Better mass transit/jitneys
- Shuttle buses for employers with 50+ employees and shopping malls

Bicycle/ Pedestrian Strategies

- Bike share programs (*free) [Each group mentioned]
- More bike racks
- Trails/ Lanes:
    - Bike lanes [Each group mentioned] (with concrete barriers)

    - Bike & pedestrian paths/lanes (w/shade)
    - City/County wide network of bicycle paths – walking paths – with employer benefits for supplying similar facilities on site.

Community Design and Regulatory Strategies

- Radical traffic calming
- Synchronized traffic lights
- Keep cars out of city
- No Idling Ordinance during transition to no (toxic) emission vehicles
- Village within a city (small community centers)
- No new roads
- Gas Prices:
    - Price of gas/incentives/disincentives might help sort out hierarchy of vehicles
    - Keep fixed bottom price on gas, give relief for food – goal is to help trucking and R.E. industry
- Large truck codes

Targets

- 2010: Legacy Trail connected through to Sarasota
- 2020: *Eliminate 50% of gasoline sales and replace with other sources
- 2030: Consolidate all roadways by 30% for mass transit
    - New airport well connected with mass transit to attract international populations

Agriculture, Gardens, Water

Water Conservation Strategies

- Rainwater harvesting – cisterns for each home – rain barrels, air conditioner drips [Most groups mentioned]
- Drip irrigation/reclaimed (gray water)
- Zero water homes
- Waterless urinals
- Self-composting toilets
- Reservoirs
- No potable water for irrigation
- Education
- Community wide gray water re-use
- Restructure rates for H2O consumption by 2010

Stormwater and Water Quality Strategies

- Rain gardens for parking lots
    - bioswales rather than pipe, ditch & drain
- Pervious surfaces including
    - Pervious pavement/concrete (required) [Most groups mentioned]

    - Geoblocks/grass parking lots
- Plants surrounding beaches on lakes
- Avoiding replacement of failed systems (septic tanks, etc.) unless replacement meets or exceeds green requirements (cost effective)
- Cradle-to-cradle responsibility on chemical manufacturers
- Golf Courses: Integrated pest management & reclaimed water
- Redirect freshwater canals\drainage to limit fresh H2O into the gulf by 2020

Agriculture/ Gardens:

- Farmers markets
- Community supported agriculture
- Food co-ops
- Tenant farming
- Incentivized gardening
- Support for getting home-farmed produce to market
- Technologies:
    - Hydroponics gardens
    - Permaculture – no waste
    - Vertical gardening
    - All gardens organic
    - Green roofs – roof top gardening
- Schools
    - teach gardening in schools
    - Farm to school Program
- Neighborhood/ Community Gardens [Most groups mentioned]
    - with rainwater collection
    - in low income areas and in public spaces (off highways, vacant lots, schools)
    - Free community plots (if maintained)
        - City owns many lots that could be used for gardens and would create amenities, could use canal water; vegetables/fruit could be sold in local markets and the profits used to manage program and help needy
    - Community gardens instead of grass lots (Zoning changes) by 2010
- Yards:
    - Certified wildlife yards/gardens in urban areas
    - Florida native yards only - no chemicals, pesticide or fertilizer
    - Edible landscaping
    - Modify codes to minimize grass
    - Allow gardens (especially HOA)
    - “Planned” areas have shrubs, gardens to be beautiful
- Composting county-wide food scraps
- Transition from sod farms to bio-fuels
- Down zoning – agricultural

Culture/Community

- Maximize use of resources
    - Public buildings as centers of activity
    - People as resources
    - Multi-use of large existing structures for cultural purposes
- Community impact values required in financing to increase Accountability and Incentives to institutions
- Community rooftop easements: Green roofs, water call, solar access
- Eco Village as major tourist attraction by 2020
- Community environmental festival 2x/year by 2010
- Manufacturing responsibility – precautionary principles
- Bartering system – among local small businesses
- Cultivate community creativity
    - Allow public space for
        - Street musicians
        - Craft vendors
        - Improvisational theatre
        - Chalk for graffiti wall
        - Outside theaters/music festivals
        - Environmental festivals to raise awareness and educate for sustainability
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    - Arts council – encourage younger Board
    - Outdoor band shell near downtown for local & national performers – political rallies
- Forge ties with local/ regional colleges and tech schools
    - Compete in design competitions to address community issues
- Parks:
    - Green space more frequent (neighborhood parks)
    - More beach access
    - Neighborhood play lots (wooded/natural)
- Support Children/ Youth:
    - School as resource centers
    - Single parent networking and support
    - Full year school schedule
    - Day care city
    - Education – cultural and environmental appreciation; Developing and promoting sustainable ideas thru schools
- Celebrate Diversity:
    - Have a diversity day with a celebration of multiple cultures on Main Street in honor of cultural differences
    - Create diverse communities
    - Encourage great ethnic restaurants/neighborhoods
- Encourage Electronic Connectivity
    - On-line community

    - Community website and chat rooms
- Community Design/ Mixed Use
    - Mix economic/social features in every large development
    - Multi-use buildings
    - Live/work zones (apartments above businesses)
    - Mixed commercial/residential
    - Senior or tenant apartments allowed with homes
    - Handicap accessible housing integrated in dense zones (walk able)
    - Control sprawl by better planning to maximize space closer to amenities connectivity to all public facilities without direct reliance on motor traffic.

- How?
    - It comes down to values – how do you get people to "own it"
    - Brand yourself as "leading edge" in sustainable or "culturally creative"
    - Understanding social fabric – make the ideas better

Power

Renewable Energy Technologies

- Solar schools, large buildings and parking lots
- Solar water heating:
    - All solar water heating by 2015
    - Solar thermal utility
- Geothermal incentives by 2015
- HB3175 state to incentivize power companies to work with communities to generate renewable energy
- Landfill gas recovery
- Waste to energy from landfill refuse
- High altitude wind and Slow wind
- Tidal power/ocean current/wave action

Renewable Energy Policies and Incentives

- Distributed generation as opposed to centralized feed in tariffs
- Incentivized power rates
- Net-metering
- Need portfolio standard (utilities to provide X% from R.E.)
- Law change to allow small power producers to produce/sell R.E. power (anyone can produce/sell solar power)
- Exclude solar from utility franchise exclusivity
- Create your own solar oil well
- Base amount of energy is free in this community; above it-watch out
- No interest loans for solar
- Some renewable power on every building – tax incentives based on amount of renewables – percentage utilized in each building.
- All insurance companies to insure PV systems by 2020
- Free college education if you live in H E R S 20% or less home to sustain eco friendly technology by 2030
- Eliminate all coal fired plants or clean coal by 2040

Energy Efficiency

- LED light codes
- Zero Energy Homes

Fuel

- Grow your own oil crops
    - Jatropha curcas
    - Oil algae – grow at wastewater treatment plants

Buildings

Green Building:

- All new construction certified green by 2010 (average Gold) [Most groups mentioned]
- Develop green certification for retro-fits
- Gray water and stormwater for toilets and irrigation
- Adopt at a minimum FGBC standards, and at a higher standard LEED into building code & regulation
- Promote use of recycled building materials
- Self contained buildings – waste, power, water, hydrogen
- Healthy Buildings
- Reduce footprint impervious surface rate
- Require or encourage natural lighting
- Limit scrape and fill process in new construction by 2010
- Building performance codes
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Energy – Conscious Building

- Energy Disclosure: Computer Energy Analysis required of New construction at time of plans submission and of Existing buildings at point of sale
- Renewable Energy Compatible: [Most groups mentioned]
    - Require wiring for solar and “plug ins” for all new construction at point of permit
    - Pre-wire for PV & plumb for solar hot water on all new home construction
- Net zero homes by 2015
- Solar panels on all covered parking
- Mandate solar hot water systems on all new home construction [Most groups mentioned]
- Provide tax credits/rebates to home builder if they build solar homes
- Tiered electric rates / time of use rates
- Smart grid
- District Heating and Cooling water and gas
- Municipalize Energy Efficiency and Renewable Energy by franchise fee
- Regulatory reform
- Promoting rooftop easements for PPAs, green roofs, etc.: Allow solar on large rooftops, Excess power for low income
- Orientation (new homes) for passive solar

- Real estate tax relief for local solar

Plan for hurricanes and climate change
- Barrier Islands: by 2013, no government-supported infrastructure and no rebuilding after storms
- All buildings resist 200 MPH winds and hurricanes by 2040

Build for long term, multiple uses, with transportation in mind
- Co-housing
- Universal Design/ visitability
- Multi-use buildings – purpose – fire, police, schools, libraries, churches
- Build clustered/high density communities
- Factory built, modularity interchangeable
- Build to last: 100 + years; continuous evolving, flexible [Most groups mentioned]
- Live & work environment that works
- Use Existing infrastructure first:
    - Search for commercial construction retrofit/reuse opportunities first before new construction
    - Incentives to use vacant buildings
- Change the zoning – residential – encourage multi-generational living – dense/diverse in-law apartments
- Gardening encouraged to feed inhabitants – green roofs
- Commercial mixed use

Funding Strategies:
- Taxes and impact fees based on community impact
- Estuary efficient mortgage
- Location efficient mortgage
- Energy Efficient mortgage (exists but not readily available)

Waste

Education & Incentives
- Educate consumers, restaurants and commercial on disposables, compost, recycling
- Encourage new businesses to recycle
- Buy less stuff
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Expand Recycling/ Reuse Options:
- Organic Waste:
    - Reduction of organic waste
    - Provide barrels and give reductions on waste bills for composting
    - Curbside compost pickup for vermicasting (feeding earthworms to create soil for community gardens
- Curbside e-waste pickup
- Expand Market for Recycled Material: Find new uses

- Inventory of waste mandatory for all commercial/industrial companies to inform of recycling gaps (by 2010)
- Reuse:
    - Landfill swap shop
    - Incentives for community rental centers for durable goods
    - Go back to repairing things instead of throwing away
    - Re-use centers**:** Building materials, Appliances, Schools, Electronics, X-treme junkyards
    - Free cycle (web based)
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- Waste to energy plants
- End use for fly ash

Policies

- Ban plastic bags, bottled water & larger plastic bottles; charge a fee if bag is needed
- Pass and enforce ordinance for commercial recycling / construction demo
- Ordinance for manufacturers to take back all durables
- Clear recycling codes
- Manufacturer Responsibility: [Most groups mentioned]
    - Must be recyclable or can't be made
    - Plan ahead for Recycling (e.g. Toyota)
    - Packaging – less of it and made from recycled content
    - Every company takes back products decreasing packaging (biodegradable)
- Improve Cost signals
- Ban junk mail (mailbox shredder – compost for garden); Junk mail with guaranteed postal return (increases carbon footprint short term)
- Only rechargeable batteries sold in city and give everyone a charger
- Reduce waste by 50% by 2020
- Feebates linking landfill/ waste pick up rates with recycling/ composting effort
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- NZEB code now 60% - change it to 90%
- BIPV encourage

Final Discussion

The full group of participants came together at the end and began a process of further summarizing and defining consensus sentiment on principles. The initial discussion led to the principles below, but further discussion will be necessary as there was insufficient time to address all categories.

Principles - Targets:

- Sustainable construction
    - Endure time and elements
    - Be affordable to live in
- Self-sufficient buildings

- Smaller footprint
- Evolutionary
- Priority given to adaptive reuse of buildings (incentives for this)
- Cultural and economic
  - Mixed use
  - Generational
- Structure and density applicable to cultural, economic and generational mixes
- District use and consumption design