

Wake County Sustainability Task Force participants provided the following answers to the question:

What will be different about our energy sources and consumption in a sustainable Wake Co?

Editor's comments: Numbers in parentheses indicate the number of duplicate or extremely similar comments made. The headings are editor's best attempt to draft vision statements reflecting the participants' ideas (and assume participants WANT Wake County to be sustainable in energy).

Multiple sources of energy will be available, giving the consumer choices

A Higher Percentage of Energy will come from renewable energy sources

Diversity of choices / options (22)

- Multiple sources to sustain a rapidly growing population
- Better, expanded, varied and diverse options available, including small, clean, and natural choices, as well as traditional choices such as gas and oil
- Equal access to sustainable energy sources and the ability to choose that which meets the need, available to all
- Choices for everyone
- Energy sources will be many rather than few
- Will see solar and other alternate energy solutions
- Energy choices will be economically feasible
- Distributed small energy sources make up most of the base load generation
- Solar and wind energy available to the general public
- Clean, renewable diversified energy options
- Use multiple energy sources –wind, solar, bio, etc.
- Gas stations will be more open to have ethanol fuel
- We will incorporate diverse energy alternatives: solar, wind, geothermal, hydro

Conventional/Traditional energy sources

- We will use less fossil fuel
- Conventional sources are use to supplement peak load needs, not provide base load
- Reduced use of coal
- Coal will still be king
- We will make better use of our own natural gas as opposed to foreign oil
- Will be less dependent on fossil fuel
- There will be reduced coal/gas resources

Renewable and General Source ideas

- A higher % of energy will come from renewable sources
- Energy sources will be renewable

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- Energy source: brought in outside of county
- Domestic, renewable, low-toxicity, efficient
- Renewable energy sources
- We will strive to use more renewable energy resources
- Energy sources will need to be more efficient (less waste)
- More “green” powered buildings ie., biomass, wind turbines, solar panels, geothermal (2)
- Biofuels will be easily accessible
- Use more renewable sources: wind, solar, etc
- Increased production of non-carbon
- Increased reliance upon solar, wind and nuclear sources of energy for producing electricity
- New energy sources will be present: solar, hydro, geothermal
- Hydrogen fuel cells for all electricity
- Shift from oil and gas to biofuels

Cleaner

- Traditional energy sources (natural gas, oil, electricity, coal) will become cleaner and more efficient
- Energy sources will be the most efficient and healthy available
- Focus on clean energy sources
- Cleaner for environment

Waste to Energy (8)

- More useable energy derived from waste products
 - Methane generation from agriculture and waste
 - Landfill gases converted to usable energy
 - Industry by-products used as fuel sources
 - Food scraps and waste vegetable oil used to create energy
 - More use of by products for fuel sources (biofuels, black liquor)

Distribution

- Sustainable energy utility
- District based energy
- New and improved local power distribution infrastructure
- Locally distributed energy generation
- Plug-in stations for electric cars are solar powered
- More local production and local use of energy
- More power produced at end user site (co-generation)

Nuclear (4)

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- Nuclear energy companies will find even safer ways to deal with waste, it will become more widely accepted and wake county will have expanded and/or additional nuclear power plants

Wind (5)

- More use of wind power where feasible, including multiple types of turbines.
- Public sites, such as schools will be leaders in wind energy
- Wind energy will be pursued in the Research Triangle
- Wind turbine energy

Solar (14)

- Solar power will be more viable and available. It's use will increase on all rooftops, will becoming the no. 1 source of electricity, common, more dependent upon
- Solar energy will be a major source of energy to public or private buildings, homes and retail/shopping center, etc., every building will use, panels on every roof.
- Solar Energy- Photovoltaics (combine w/ LED's)

Water (3)

- Hydro generation
- Enhanced hydro power base on tidal (2)

Transportation will consume less energy

Mass transit and planning

- More mass transit will be available(4)
- More people will use mass transit (4)
- Mass transit will use alternative energy sources
 - local energy sources
 - fewer fossil fuels
- Alternative forms of transit will be available
 - Electric powered mass transit will be much more in use
- Planning will change to accommodate mass transit
 - More walkable/liveable development patterns that reduce dependence on autos
 - Smart growth closet to cities and employment

How to achieve sustainable mass transit goals

- Bus tickets will serve as lottery tickets
- Mass transit will be more convenient
- Rail system (2)
- Rapid transit

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- Regional transit (2)
- Bike lanes or large shoulders on roads (2)
- Telecommuting opportunities will increase to become the new normal

Autos

- More opportunities to utilize alternative fuels in cars
 - Hydrogen generators for fuel cells in autos
 - Driving efficient vehicles- electric and hydrogen (2)
 - Alternative fuel vehicles: electric, biofuels (2)
 - We will have more electric cars (2)
 - Private electric vehicles will predominate
 - No more fossil fuel required for vehicles
 - Fully electric county vehicles (2)
 - Convert county fleet to electric plug in vehicles in cooperation with NCSU
- Higher fuel efficiencies for autos (2)
- We will have fewer cars fueled on gasoline that comes from the Middle East

The community will have a greater understanding of energy consumption and options.

- More people will know where their energy comes from and will understand their energy consumption and the County's consumption better than now
- Awareness of energy efficiency will be on par with awareness of renewable energy
- Citizens and businesses will have a profound understanding and appreciation for energy intensity (feedback loop)
- Citizens will become conscious consumers of energy
- Education about alternative energy
- Better understanding and accountability for our personal energy use – in our homes, work, cars, etc.
- Environmentally aware consumption

How to achieve energy education:

- Energy sustainability will be taught in schools
- Schools will be encouraged to teach about energy efficiency and measuring energy use (part of high school science)
- Awareness programs for people to learn about energy conservation
- School programs expanded so that elementary kids learn what to do and how

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Pricing, Markets, and Policy will increase energy sustainability

- Sustainable sources of energy will equal long term, cost effective solutions
- Innovation will be viewed as a valuable commodity
- Cost will not be the excuse for not implementing new technologies
- Energy ideas will be significantly cheaper to implement than they are today
- Cost efficiency (what will be least burden to taxpayer but most efficient for producer?)
- Our cities and county will be achieving CO₂ reductions beyond Kyoto goals
- Energy cost will be higher (4) [including 3x present cost]
- Long term cost effective solutions = \$\$
- Cost reduction, energy sources, and consumption: what will be different?

How to achieve energy sustainability:

- need feedback mechanisms about impacts of using renewable resources
- Incentives for alternative energy
- Incentives for energy conservation (4)
 - Tax breaks to drive demand
 - Lower, tiered cost based on usage (2)
 - Better, more, expanded incentives for companies to go above and beyond energy reduction/green energy use/installation
 - Demand management that provides incentives for conservation – residential and commercial
 - Buy back from electric company
 - Energy consumption: homeowner's will be credited for conserving energy
 - Provide opportunities for businessmen to pursue "green buildings"
- We will mandate controls for limiting use of energy and other resources (water)
 - Penalties for over consumption
 - Electricity will be taxed to reduce consumption

Energy conservation, including efficiency, will lower per capita consumption

- A much higher value will be put on conservation, expanding our current resources
- The utility usage will be 30-50% less in government facilities
- Small amounts of energy will have a BIG IMPACT – efficiency
- Consumption will decrease because citizens are using energy more efficiently
- Citizens, businesses and governments will be conserving energy and using energy efficiency technology to reduce total electricity and fossil fuel use by half

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- Focus will be in conservation of resources/reducing consumption rather than on increasing resources
- Commercial customer-20% reduction in energy use by 2015
- Energy consumption per person will be down because the norm will be “using less.” The prices of energy will be much higher; making this practice something everyone wants to do. Our homes, cars, buildings will all use less
- Energy consumption will be 50% of today = Europe
- Less waste
- Consumption per person of fossil fuels will go down substantially
- Per capita consumption will be lower (2)
- We will find ways to not only use less energy to do the same things we do today but will consume more cleanly
- In a sustainable Wake County, energy consumption will be decreased and energy efficient measures implemented throughout county
- We will develop and find smarter ways to consume energy
- Energy consumption for county facilities will be lessened dramatically due to commuting

How to achieve conservation:

- Use less (don't waste energy)
- Upgrade to energy grid
- We will all consume less
- New construction
 - Change building codes to require more highly-efficient home construction (6” studs, 3 pane glass, etc.)
 - All new construction will be LEED or comparable energy standards (2)
 - Energy efficient retrofits for homes and buildings
 - Houses will be built more energy-efficiently
 - There will be more “green” homes and businesses built
 - All buildings (including those belonging to low income communities) are weatherized to reduce e- needs of climate control
 - Homes will be smaller and better insulated, which will tend to reduce consumption of energy
 - New homes built to heat and cool themselves
 - Smaller homes
- Ensure all schools are equipped with solar panels for power
- Convert as much lighting in county buildings to LED
- Address the issue of fuel consumption by finding other means, such as electric cars, carbon fuel
- Smart electricity grids
- Consumption: in 10 years every building will have programmable controllers for managing building energy use
- We will reduce own wasted energy thru energy audits

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- Smart appliances
- Smart meters
- Less cost for home owner
- LED lighting for ball fields parking lots streets
- Much lower consumption because of using energy efficient public transport

Alternate views:

- Consumption: Demand will go up dramatically. Efficiency must increase
- Increased consumption due to growth and technology

Society will change its thinking concerning energy

- Energy will be considered as an initial filter when decisions are made about how the county grows and operates
- People will take personal responsibility for conserving energy (sustainability)
- Need to collaborate with other counties to make difference
- More productive communities
- Community & individual engagement
- When people think about energy they will think also about how it connects to other resources
- All our food is locally grown-so we reduce the number of miles it travels
- Drying cloths outside will be new status symbol
- Move towards paying for services instead of things
- Less emission of pollution
- Chemicals reduced in water