



Wake County Sustainability Task Force News

At our November, 2010 Sustainability Task Force meeting we heard from an invited panel on renewable and clean energy.

At the beginning of the meeting, the group continued work on a definition for sustainability. We will finalize a definition in December, and determine the group's goals for energy.

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NEXT MEETING

Thursday, **Dec 16**

Wake County Commons
Building

4011 Cary Drive

Raleigh, NC 27610

4:00– 6:00 p.m.

Renewable/Clean Energy Panel

Panelists were invited to join the Task Force and provided with a list of questions that have arisen during energy discussions.

Daren Bakst, John Locke Foundation (**DB**)

Ed Finley, NC Utilities Commission (**EF**)

Steve Kalland, NC Solar Center (**SK**)

Panel Questions are in bold, participant questions are in *italics*. We did our best to accurately reflect the answers provided by the panelists. Please note the wording may not be exactly as spoken and comments that were not discernable in our notes were deleted.

1.) Can you comment on NC Renewable & Portfolio Standard (RPS) also known as Senate Bill 3? Other organizations goals? (Kyoto, ICLEI)

EF – Kyoto is about greenhouse gas and climate change.

Senate Bill 3 (SB3) tries to accomplish a reduced % of sales by electric supplies of traditional sources that might emit greenhouse gases by 2021.

SK – Kyoto is not structured like NC's renewable standard. Kyoto focused on climate change.

Motivation of Renewable Portfolio Standard- SB3 is about environment issues but not just climate change – read the preamble of SB3 – includes green jobs, other emissions. RPS focuses on electric energy.

DB- What do I think about RPS? RPS is a mandate on utilities – it's not a reduction in sales, utilities just have to generate 7.5% power by renewables. 5% energy efficiency. Can include buying from out of state up to 40%. Renewables are heavily subsidized. People aren't buying (He referred to charts he handed out). Utilities don't want to buy renewable energy because it expensive and intermittent. Becomes a tax on customers. E costs go up.

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EF - Is it a good idea? That depends on what is good. Yes if green energy is the goal, yes its good. NC Leg. Say more green energy is good, so provides subsidy. If you look at pure econ terms, different perspective.

SK - Yes, Daren is right about... Econ devt in NC – leakage is an issue. All issues hashed out in general assembly. Subsidies – no such thing as unsubsidized energy source – all receive them – RR tracks were subsidized to move coal, which reduced costs of using coal. There is a whole array of subsidies, in different forms.

(Price – Anderson Act – subsidized nuclear power plants)

For renewables, to get new technologies up the curve, they haven't received as much

Subsidies are a tool to say to high tech companies that we're open for business. SC doesn't have ability to go to high tech companies, to show desire to create market for high tech products.

RPS is about achieving renewable energy and creating jobs in sector

Q: *Is there movement by NC Legislature to repeal SB3?*

DB- What are environmental costs of energy? Massive amounts of land to create energy through Solar/wind. Wind – insignificant Co2 reduction.

EF- haven't heard any call for repeal – many stakeholders were involved and each got a little something out of it. New G.A. new session? Unknown what they will want to do.

SK – Governor's Energy Policy Task Force talk about tweaking it. Poultry set aside is a problem.

Comment: Interest in justice aspect – rate payers (many low income) pay more...

EF- I went to Europe, EU, Belgium, Germany. These countries believe climate change is real. We want to make the sacrifice today to protect future generations. Have to do something now. Threat of rising sea level on poor more than justifies the justice aspect.

Q: *High Tech Companies – what do we need to do in NC to become tech leader from an incentive perspective? Does Federal initiative (20%*

renewables by 2020) impact the conversation?

SK- NC made great strides in this area. We're already leader in some:

RTP has smart Grid companies there. Iintermittent renewables are able to integrate into system.

Charlotte area has a lot of work going on there

State tax credits have helped RPS.

Solar – NC is 10th in market for new installations

The fear is that we backslide while others move forward. Need to keep up with the Joneses if we want progress.

Other areas de-regulated utilities and credited grants/funds, but Southeast doesn't think that way. We're on the right track. We want to stay on the front edge of new technologies.

2) Are some forms of energy better than others?

Solar, wind, hydro – no emissions

Biomass – can be dispatched

Hard to say some are better than others – depends on question and geography.

Biggest driver is geography. Hard to put poultry waste processing or biomass in Raleigh.

Large roof tops suitable for solar. Wind isn't sensible in this region (yes at coast, possibly)

Heat geothermal – not here, have to dig too deep (but a house in Cameron Park is heated this way)

Energy efficiency – have to do this first, it's cleanest since it is energy not produced.

DB: Solar and wind do emit pollutions. Wind is intermittent – requires backup.

Hydro – good renewable

"Dispatchable" means grid managers can call upon it as necessary.

SB3 doesn't allow utilities to use hydro power in the renewable portfolio, only biomass, solar, wind.

Q: *How feasible is Landfill gas as renewable E source? Cities can only sell to 1 company.*



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EF: Widely used when gas is available. Can't sell it to retail, have to sell it to a monopoly.

Problem – there is a finite amount of gas – it goes down over time. Relatively cheap, one of 1st renewable used to meet RPS.

SK: From the pool of renewable, the 1st cheapest was used, then the next cheapest is used. Landfill gas has been 1st cheapest

NC has more landfills than almost any other state (many are small landfills).

"Legislated Monopoly" means it is complicated to sell power effectively.

Small facilities? Idea is to have a small landfill fueling small businesses (example of town near Boone - Wynne has been there and can bring documents about it).

Comment: we should explore clean energy (its hard to hear the speaker's question but it sounds like they doubt global warming.)

What we do won't create change in climate, but there are other reasons to act, like national security, cleanliness.

SK – Many reasons to look at. Nuclear – not good or bad, but unless it's already built, it is expensive. Rates would go up. If we do nothing demand will grow.

DB – National security- renewable electricity deals with electricity, not transportation. We don't use petroleum for electricity here. We are energy independent when it comes to nontransportation.

Clean Energy – should focus on clean. Nuclear power is clean if concern is about air pollutants (CO2). Most reliable, and costly to build but not per kw/hour.

SK– Baseload power at Progress Energy site is underutilized. We have the chance to replace petroleum use with electric - electric cars using charging stations at night.

Q: The purpose of incentives is to provide a support for new technologies, so we don't have to support forever until they become competitive. Which could become competitive?

DB – Solar/wind have received subsidies for decades. Hydropower would be competitive, but SB3 doesn't allow it. Wind/solar have limitations, until we can store power from them.

EF– Price of solar is coming down. New hydropower is a renewable resource, but it is difficult to site in this state – it has proponents and detractors. US Fish and Wildlife doesn't like dams.

SK – There are no viable hydropower sites in Wake to develop. Solar, wind, biomass all have interesting aspects. No one major source is better. Solar wind costs have decreased. Manufacturers are getting larger. All have potential to get off of subsidies. Yes there are limitations with storage, but up to 20% power from intermittent sources is possible with smart grid technology.

3) Renewable vs clean? What's better?

EF – Depends on your point of view. SB3 has many goals, some of which follow:

Energy independence – clean is not important
Greenhouse gas reduction – clean is important
Lowest costs – clean is not important
Help farmers – clean is not important

SK - Yes, I agree, and energy efficiency is the cleanest.

DB - should be affordable and reliable
Clean, if I had to choose.

Interest groups drove SB3. Consumers and taxpayers weren't represented at the table for SB3.

Q: *Sustainability: how do we get there?*

EF– Efficiency. Power companies have programs that can reduce power bills, reduce demand, can have energy audits of facilities, schools (terms improperly, calibrated, HVAC systems not done right)

Education, Get kids involved for E efficiency

Blue Flame program

4) What roles can Wake County and the community play for sustainable energy?

SK – Local Government – low costs expedite

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permitting for green cert. buildings (Asheville ex)

Demos – ie. Raleigh electric vehicle charge station

Public events for education

Projects that show leadership of community allow companies and communities to share values.

Good partners to help promote what they are doing, like Progress, PSNC, other companies that provide rebates.

Help Solar Center inform about services available.

Remove barriers – ask renewable energy companies what the barriers are.

DB – We’re not running out of Energy sources (coal or natural gas) If so, prices would rise and public would use less.

It is implied that U.S. doesn’t use energy efficiently, but as GDP increases, E consumption decreases. A market failure assumption is made.

We are using a lot of Energy, but not in terms of GDP. Philosophical difference of me (DB) and other panelists.

People smart enough to know if they want to buy

E efficient houses, appliances. Modifying behavior of consumers is chilling.

No need for rebates - the lower income pay higher rates, while wealthy buy new appliances.

Opportunity cost – extra money could be used elsewhere.

Communication to members – be aware of E efficiency in houses.

Don’t do anything policy wise.

Q: *Spent nuclear fuel rods – why not do what France does?*

EF: Talk to your Congress people –it’s a national issue, and that’s how things get done. Enriched plutonium/uranium can get in wrong hands. The technology is tried and true, yes.

Q: *Considering the life cycle for cars – batteries (mining, disposal, power source) should we recommend electric cars?*

SK- Yes batteries are problematic today. Though reclaiming metals is replacing mining. Improvement in electric storage technology, plug-in – requires one big (smoke) stack rather than many stacks (referring to automobile exhaust pipes), easier to control. People will not stop driving cars – this may balance equation.

Q: *What about burning trash?*

SK: Makes sense.

Proposed Timeline & Tasks

Wake County Sustainability Task Force Dec– May 2011

December	STF meeting: Determine energy goals; finish Sustainability Definition
January	Water Work Group meeting (#3):finish discussion on 1 st draft recommendations 2 nd draft Water Recommendations are sent to STF STF Meeting: Review Final Waste Recommendations
February	Energy Work Group meeting (#1): review 1 st draft recommendations STF Meeting: Review 2 nd draft Water Recommendations
March	Energy Work group meeting(#2): review 1 st draft 1 recommendations STF Meeting: Review Final Water Recommendations
April	STF Meeting: 2 nd draft Energy Recommendations reviewed at STF
May	STF Meeting: Review Final Energy Recommendations, brainstorm next steps

Definition of Sustainability

In October, the Task Force wrote 4 definitions of sustainability based on important components of definitions provided previously by individual members. These 4 definitions follow:

1. The ability to be continued over time for improved quality of life and environment.
2. Utilizing practices that ensure environmental and social well-being on an economically viable basis
3. Meeting the needs of the present and the future generations through good stewardship of resources to create a healthy quality of life without sacrificing the right to individual independence.
4. To restore and maintain natural systems in order to meet current needs equitably without compromising the resources required by future generations.

When polled, definition #4 enjoyed the most support and least number of "Blocks", so in Nov. Christy suggested they focus on identifying what the other positive aspects the other definitions have that 4 is missing, and then find ways to improve 4 to meet their interests.

1. Elements of 4 that are similar to other definitions:

Over time, includes the future, not just the present (2 comments).
 Natural systems could be synonymous with quality of life, environment.
 Uses words "environmental, social, economic".
 Healthy quality of life.

2. What desirable aspects of 1-3 does #4 NOT have?

Social well-being not included.
 Economic viability not included (2 comments).

Individual independence not included (2 comments).
 Missing "quality of life" "and" "stewardship".
 Lack of emphasis on people.
 Needs to define "whose" current needs.
 Missing healthy (people & environment).

A participant suggested also looking at revising definition #2

What is missing from #2?

Stewardship
 Long term
 Quality of Life
 Regeneration of natural resources
 I'm concerned about economic viability being a litmus test.
 Economic viability is key
 Can't provide social justice
 Restore and maintain is same as stewardship

3. If you can't live with #4, Why?

It can't be operationalized & measured.
 How much to restore and maintain (what is the right amount?)
 Can't know requirements of future generations.
 Relative terms are hard to define.

Suggestions

What about resources needed by future generations for quality of life, health (air, water, food).
 Don't squander resources, leave some for future.

Next Steps: The Task Force asked for staff to revise the definition based on feedback gathered today.

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