

Climate Change Update



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Presentation by Margo Moehring, Director of Strategic
Initiatives
to the Northeast Florida Regional Council Board
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Report on “2008 Serve to Preserve A Florida Summit on Global Climate Change”

● Themes

- A Year of Progress
- Creation Care
- Going Green makes Economic Sense
- Business is Key
- Green Technology fuels Economies
- Learn from Leaders who are Doing it!
- Learn from Governor Schwarzenegger!

Why this matters?

- We are part of the problem:
 - FL has 6% of the US market and 6% of US Greenhouse Gas Emissions (GGE)
 - If we were a country, FL would be in the top 20 in emissions worldwide

Why this matters?

- We can be part of the solution:
 - FL has good access to alternative energy sources:
 - Sun
 - Coastline and Ocean
 - Wind
 - Alternative energy sources do not emit greenhouse gases
 - Renewable energy sources emit less greenhouse gases (biomass)
 - FL Universities and businesses are on the cutting edge
 - Green business is a growth sector
 - Growth provides an opportunity to make choices that make an impact
- We can boost our economy and our lifestyle while we do it!

A Year of Progress

- Last year, the Summit **made the case** for climate change and the need for alternative energy sources
- This year, the State **made the commitment**
- HB 7135 (100% of the legislature supported)
 - Establishes Florida Energy & Climate Commission (will review draft rules)
 - FPSC to study utility revenue decoupling
 - FPSC to present new utility Renewable Portfolio Standards by 2/1/09
 - Major emitters must report to a Climate Registry. FDEP proposed rule must include a statewide cap, method to make allowances, a process for trading and a trial period
 - All new State buildings to meet LEED energy efficiency standards
 - Greening the fleet
 - Renewable fuel standard 10% ethanol by 12/31/10
 - Incentives provided

A Year of Progress (cont.)

HB 697

- Requires FLU and Transp. Elements of Comp Plans to address energy efficient new construction, land use patterns and strategies to reduce GHG emissions
- Sets new building code standards: Florida Building Code to be updated to improve energy performance of new buildings by:
 - 20% by 2010
 - 30% by 2013
 - 40% by 2016
 - 50% by 2019
- Recycling goal of reduction of 75% on SMW that was disposed of in 2007, Comprehensive recycling program by 1/1/10 (FDEP)

Creation Care

- Summit opened with a panel of religious representatives
- Trend to environmental awareness
- There is a need for balance and we have exceeded the carrying capacity of the earth
- Many faiths would support a personal obligation to restore balance and care for creation
- Faith-based efforts can be powerful tools to reach a broad spectrum of citizens

Going Green makes Economic Sense

- **Growth is an opportunity** to reconfigure our way of doing business. Saves the cost of retrofit and creates jobs.
- **Efficiency/conservation** is the low hanging fruit that will slow the need for investment.
- **Markets are creating themselves:** RGGI in the Northeast, 9 states, about to go operational, CCX in Chicago, GHG trading since 2003.
- **Green business is a growth sector.**
- **The savings are real.** St. Pete saves \$200M per year because of building efficiency standards, LED traffic lights.

Business is Key

- Interface/Flor carpets CEO Ray C. Anderson
- Self- described “Recovering Plunderer” from the Take/Make/Waste school of manufacturing
- Mid 1990s, the company decided to stop plundering, without waiting for regulation
- Since 1996, cut GGE in operations by 56%
- Currently all products are carbon neutral, using offsets (Certified Cool Carpet)
- No use of virgin materials by 2020
- Doing well by doing good
- Cool website, with metrics, at www.interface.com

Business is Key- some Observations from Business

- Regulation is irrelevant to getting started
- Govt. needs to transform itself/look inward-
where are we in the way?
- Corporate policy needs to match business
model and investment portfolio
- Energy efficiency is a resource
- Govt. and Utilities must not miss the
opportunity presented by the large number of
energy plants that need to be replaced in the
next 15 years

Business is Key- some Observations from Business

● Challenges

- No national electric grid. Not all states can make lots of energy from renewable sources, so they must be able to reliably share
- No incentives for AG and Forestry lands to be preserved to get and keep carbon out of the air
- Government needs to act quickly on issues that will help the market. Example: Standardize specs for electric car batteries
- Brain Drought- The state needs to train quality experts in alternative energy

Green Technology fuels Economies-Universities

- UF- Cellulosic Ethanol (from non-edible sugar cane waste) could satisfy 1/3 of projected US gas needs by 2030. No refinery yet.
- FSU- Bucky paper: composite material that is lighter, stronger and safer for wind turbine blades.
- FAU- thermal energy from surface waters and mechanical energy from waves, currents and tides. Pilot project will be a small-scale ocean current turbine offshore of South Florida.
- Shortage of engineers in alternative energy studies
- Industry, such as Petra Solar, partners with Universities. October release of a \$1000 (approx.) modular solar panel, so that individuals and businesses can invest in solar over time.

Florida Power and Light

- CEO Lew Hay:
 - Place a price on carbon so there is an incentive not to produce it
 - The cost does not go away if it is not done now, it just gets higher
 - \$ to be made in cost effective CO2 solutions
 - Cap and trade is not a cost, rather an incentive to invest
- FPL
 - Largest US provider of power from wind and solar
 - 50% from alternative energy sources, mostly purchased wind
 - Projects underway:
 - Solar/Thermal plant in Martin County (75 MW)
 - Kennedy Space Center (10MW)
 - Photo Voltaic facility in De Soto County (25MW)

Who is doing it?

- International

- Israel: Oil is a drug and we need to give it up
 - By 2012, 15% of energy will be from renewable sources
 - Solar water heat is required by law, 80% of homes use it
 - Within 7 years, most of the buildings in Israel will sell power back to the grid
 - Population has increased 50% since the 1960s but water use has stayed the same (Desal. and 75% reuse)
 - Water conservation is taught in school from age 4
 - 60% of AG land in Israel is drip irrigated, 6% in USA

Who is doing it?

International (cont.)

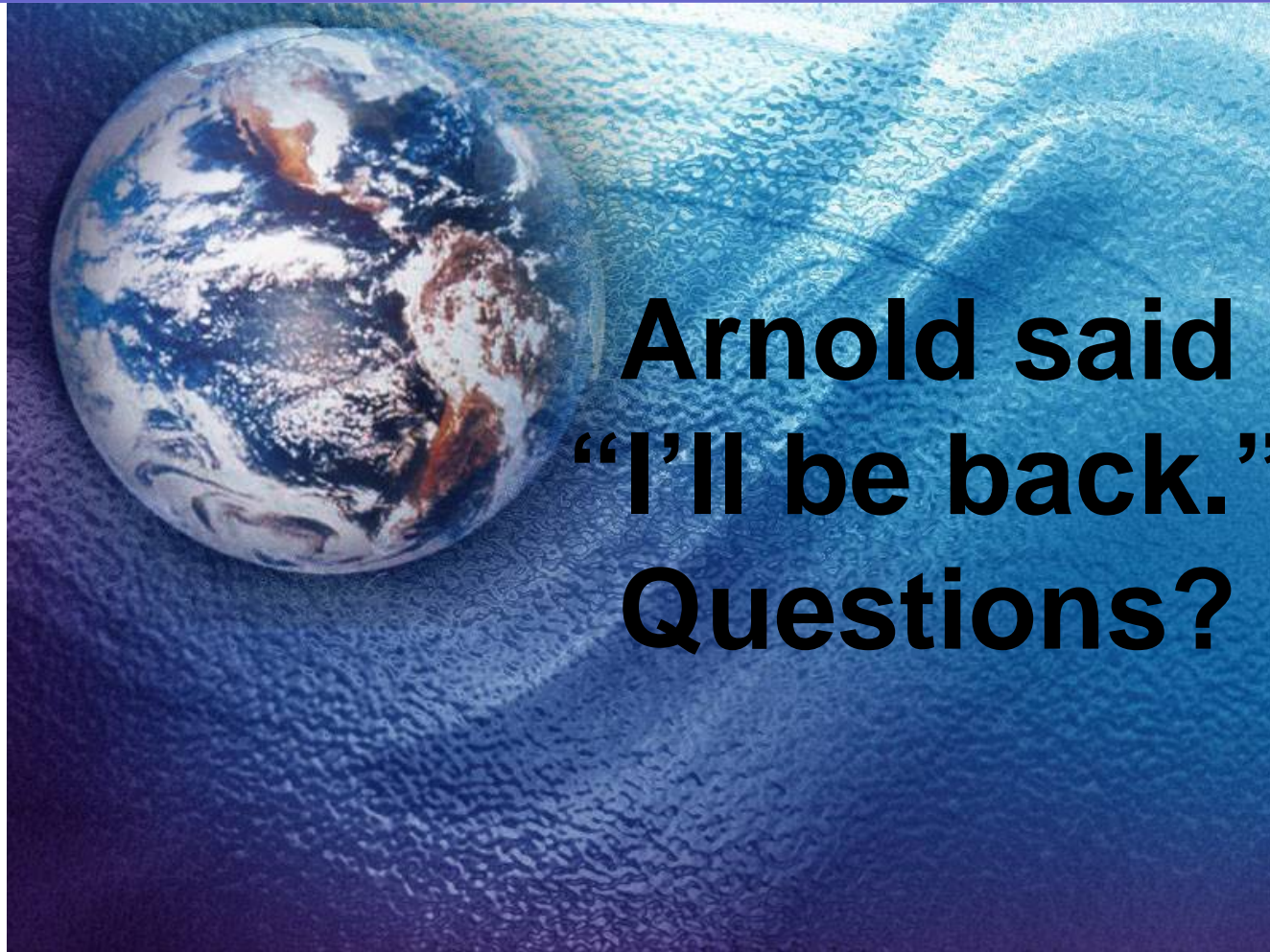
- France: 90% of energy has no carbon footprint, nuclear and hydropower
- Japan: Japan decided 20 years ago to reduce energy dependency, now is 2x more energy efficient than US
 - Once solar was installed in many Japanese homes, people started “driving their house”. Usage was reduced by 9%
 - Temps are set at 83.4 degrees, June 1 - Sept. 30
 - Goal: 50% reduction in emissions by 2050, trying to do 80%
- All agree on the need for an international agency for renewable energy
- National
 - Phoenix: Converting all City buildings to green
 - PLANYC
 - Houston: 50% of the power grid from renewables

How are they doing it?

- Chicago: 25% reduction in GHG by 2020
 - Emissions are 70% from Buildings, 20% from transportation
 - Goals/Methods/Approach:
 - Retrofit or rebuild ½ of the building stock by 2020 (Chicago already has the most LEED buildings in the US)
 - Good transit
 - 100% recycling by waste haulers
 - All initiatives have to create jobs
 - Jobs
 - 2012 and 2020- btw 5,000 and 10,000 new jobs will be created based on climate change initiatives, including jobs in the green biz and the market impact of energy savings
 - Both number of jobs and social equity of jobs is measured

Who is doing it in Florida?

- Gainesville: Got 17% of the FL solar rebates last year, has 1.3% of the population. <http://gainesville-green.com> compares energy footprints of homes based on utility usage data, competition with Tallahassee
- Sarasota: Goal to cut carbon emissions 60% by 2010, fertilizer ordinance and required applicator training
- Miami Mayor: **BUILD GREEN OR DO NOT BUILD**
 - All buildings more than 50,000 sf must be green, 30 so far, permitting is expedited
 - Environmental stewardship considered in every decision of government
 - Tree plan
 - Make policies that make it **harder** to use a car
 - Solar City Hall, hybrid fleet
 - Plan for adaptation if sea level rises



**Arnold said
“I’ll be back.”
Questions?**