



**SUSTAINABLE SYSTEMS COMMITTEE
JUNE 16, 2010**

Committee Members in Attendance – alphabetically:

Arthur Guilford	Tammy Kovar
Bill Johnson	John Lambie
Gee Dee Kerr (representing Nancy Detert)	Kumar Mahadevan
Kelly Kirschner	David Sessions
	Kelly Westover

Committee Members Not in Attendance – alphabetically:

Alan Barberio	Anne Merrill
Jim Blucher	Julie Morris
Don Borden	Ron Reagan
Michael Carlson	Don Ross
Nancy Detert	Matt Ross
Don Fell	George Serrano
Jim Guida	Shannon Staub
Bob Hueter	

Invited Guests

Lee Hayes Byron	Jim Turner
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Staff Members in Attendance – alphabetically:

Cindy Bean, Facilitator	Lee Kotwicki
Laurel Corriveau	Joan McGill

Call to Order

The meeting began at 8:45 a.m. Joan welcomed everyone and Kumar and Art thanked David for hosting the meeting. Cindy provided a recap of the strategic goals previously committed to by the committee.

Business Models

John Lambie provided a handout on behalf of Julie Morris regarding redevelopment (attached). In addition, he also provided a document entitled, "Reinventing Home Improvement" (also attached). Kumar asked if this focuses more on retrofitting because, if so, it is very expensive. John stated the home is a place to start, but it would eventually move to roads, restaurants, etc.

Lee Hayes Byron

In particular, Don Borden suggested using a structure in specific language to see where things fit. He suggested that there are specific categories of energy, food, land use, transportation, waste, and water.

Cindy asked for clarification from the committee as to the details of the business model, such as how would the implementation of this group's efforts be structured and how will they be funded. To wrap up the conversation, Cindy asked for comments on the business models, which were as follows:

- The business model should include government and private equity funding.
- The model would demonstrate the energy savings not only to the consumer, but to the sources as well, i.e. toilet uses less water, which then results in water companies reducing their infrastructure. We need to create incentives so people will want to make the switch.
- A lobbying effort with the state to get funding put back in place for solar systems. The state needs to fund this.
- Immediacy of action with the PACE program. Need to market the program. This could be accomplished by combining it with other programs to make it more viable, providing pamphlets in the business model, which could be the Florida House.
- People need to make the switch – take ownership, be accountable, and reap the rewards.

It was agreed that in order to achieve the above, a redevelopment subcommittee needs to be formed. At that point, Cindy distributed a form to each member of the committee and asked for their commitment related to sustainability. Those commitments are summarized at the end of the minutes.

E1 - Aquaculture

The aquaculture industry has already streamlined permitting; however, Kumar commented that water is still a major challenge, even though most of it is recycled. He would like to see changes in permitting to allow for more water at the Mote Aquaculture Park. We need to focus on getting the regulatory environment and other obstacles out

of the way so farmers have the opportunity to transfer their water rights to Mote or to engage in aquaculture activities themselves. Jim Turner commented on the great job Mote does with their aquaculture park and agrees there needs to be interaction/communication with the farmers.

Long-term expectations are that fisheries will not be able to keep up with demand and will result in a seafood deficit. Without government and/or private support, the aquaculture industry cannot take off. Mote's business plan for an aquaculture park uses "off the shelf" components, so new parts don't need to be manufactured. Kumar mentioned there is a farm in Gainesville that used their blueprint. A push for an aquaculture park in Manatee would be good and this should be in our plan. We could then brand our regional aquaculture products.

The gulf region needs to "kick-start" the aquaculture industry. We could provide the expertise for other counties. Kumar would like to see a visitor center at the aquaculture park, which would offer tours and seafood could be purchased. The initial cost of this project is estimated to be \$100,000. The suggestion of ten investors - \$10,000 each was proposed.

Joan mentioned someone contacted her who was interested in starting an aquaculture park and needed 60 acres. She was unsuccessful in finding the land. It was noted that this is because most of the land is under the umbrella of the 2050 plan. It is a very complex regulatory plan with interrelated parts. The concept is good, but it makes it difficult for a landowner to carve out 60 acres because of how it will affect the surrounding land.

Knowing this, it was suggested that a forum be scheduled with multiple landowners and Mote. Swiftmud needs to be consulted prior to this meeting. One suggestion at the meeting could be that farmers could convert part of their crops to fish. However, they would need to borrow money in order to put the structures in place.

Another important point brought up is the quality of standards between the farm-raised fish at Mote compared to farm-raised fish outside the U.S. The standards for quality need to be regulated so it is an even playing field.

Kumar stated that an incubator facility is planned to be built at Mote's facility. It won't be operational for a year to a year and a half. USF will own the building, but USF will work jointly with Mote; however, the agency providing the grant wants a lien on Mote's 200 acres for 20 years, not just the property being subleased. It was suggested that Rod Casto be invited to the next sustainable systems meeting and discuss his incubator program at USF Tampa.

Cindy again asked for the committee's comments as it relates to aquaculture. Responses are as follows:

- Create an input/output and capital asset model for aquaculture
- Stronger lobbying to level the playing field as far as quality of imported fish

- Kumar is interested in the watershed management plan. He may be able to help with Steve Suau's effort regarding water permits. Kelly, Kumar and Steve could work together.
- Take advantage of this horrible situation with the oil spill to fill the gap with aquaculture. Also, from a political standpoint, eliminate regulatory barriers.
- Mote typically benefits from Aquaculture Review Council grants (about \$400,000 per year); however, these grants have been unavailable for the past three years due to budget cuts. GeeDee stated she would address the issue with Senator Detert.
- Aquaculture Review Council grants (about 400k per year) because of overall state budget cuts
- Establish land use incentives (i.e. tax breaks, low interest loans, government subsidy for aquaculture, etc.)
- Educational outreach for aquaculture. Help with architecture and zoning - public funded building.

Marine Science Education

Art feels it is important to develop an entrepreneurial institute. This would be a joint effort with Mote, Florida Fish & Wildlife, Sarasota Conservation Foundation, and USF Sarasota Manatee. Don proposed it could start as early as summer 2011. It would require a source for funding of approximately \$100,000.

Cindy again asked for everyone's comments regarding Marine Science Education:

- Develop a Marine sciences undergraduate program at USF Sarasota with Mote's assistance.
- Develop small businesses in the aquaculture industry to keep students local
- Expand to retrofit the environmental institute concept
- Get local legislative delegates into position
- 150 interns from all over the country come to Mote – need to encourage them to stay here. Work with farmers setting up aquaculture.
- Synergy opportunity with small business entrepreneur. Need to make this clear and get the money.
- Connect the creativity corridor and design a creativity group together.
- Like in Austin, Texas, great institutions attract great businesses.

- Need to promote the relationship that USF Sarasota Manatee has with Mote Marine. St. Andrews Golf course is interested in teaming up with USF's hospitality department.

E3 – Assist Local Businesses and Create New Businesses

Kelly Kirschner would like to see E2 and E3 blended, but keep sustainable energy as a separate initiative. He encouraged all committee members to attend the 2 p.m. meeting at city hall regarding the renewal of FPL's agreement.

He suggested the possibility of using the Florida House as an office for the redevelopment group. PACE has not necessarily been successful, so maybe the Florida House can create the marketing material for this program. We need to consult with someone from the tax appraisal's office and Sarasota County (possibly Lee Hayes Byron).

Cindy asked for the committee's comments:

- Florida House needs a purpose – PACE would be good
- Kumar thanked everyone for participating and mentioned the governor is coming to Mote tomorrow at 2:30. They are looking for Mote to be one of the primary care facilities in the region in the event the oil does reach us.
- There are no best practices if the oil comes on shore. We need clarity on best practices.
- Bring the Dutch here and have a symposium.
- County's Energy Economic Zone is a good topic to discuss. Entrepreneur Institute could feed into the Mote incubator and visitor center. Link these pieces, which will in turn create new businesses.

Next Steps/Commitments

Arthur Guilford – Continue to pursue undergrad science majors and work on enviropreneur funding. Would like to obtain more information on the incubator development at Mote.

Lee Hayes Byron – Set up subcommittee meeting and encourage group to get into detailed next steps on business models and explore opportunity for enviropreneur institute in retrofit market.

Kelly Kirschner – FPL – new franchise agreement opportunities and communicate with Lee Hayes Byron on who is leading the charge on PACE and the opportunity to empower the Florida House as a marketing arm to evangelize and get early adoption.

John Lambie – Will work on redevelopment and work with the committee to come to an agreement on a framework and strategy for business models. In addition, will connect with other platforms and connect with the Florida House board.

Kumar Mahadevan – Set up a meeting at Mote Aquaculture Park with Steve Suau, David Sessions, Kevan Main, Karen Bell, Kelly Westover, Jim Turner, and Dan Bebak for plans to develop a visitor center/store at the Mote aquaculture park.

David Sessions – Marine science education, assist local business and create new business regarding water incentives, work with Mote Marine to explore the Visitor Center concept at the Aquaculture park, and lobby Sarasota County to provide incentives to business/regional for water efficient improvements.

Jim Turner – Work with Kumar on expanding aquaculture opportunities (meeting with farmers and issues with 2050 plan) and work with USF regarding marine sciences undergrad program in conjunction with Mote internships.

Kelly Westover – Will work with Steve Suau to come up with ideas to streamline water use permitting and Follow up with Lee Hayes Byron re EEZ and potentially have her do a power point presentation at the next meeting.

GeeDee Kerr – Discuss the Aquaculture Review Council grants with Senator Detert.

The meeting concluded at 10:26 a.m.

The next meeting will be held on August 24th from 8:30 a.m. – 10:30 a.m. at USF, 8350 N. Tamiami Trail, Sarasota 34243.

REINVENTING HOME IMPROVEMENT

Imagine homeowners simultaneously revitalizing the economy, saving money, reducing oil imports, improving downstream water quality, safety and their quality of life. Our homes and commercial buildings are the basic infrastructure of community and it makes sense to improve their performance for a myriad of reasons. Spending tens of thousands of dollars for sensible building upgrades can actually reduce monthly overhead. Many are already doing just that, mostly at the two opposite ends of the economic spectrum, through the budding high end green home retrofit market, and through subsidized affordable housing retrofits funded by weatherization and community development grants

PACE is a way to grow the high performance home improvement market for everyone –

The PACE home energy bond* structure (<http://pacenow.org/>) provides residential and commercial building owners financing for performance improvements with positive cash flow.

Florida exports \$100s of millions annually for foreign oil. Weak and inefficient buildings hemorrhage money. Pace financing can help us turn that around now.

There are approximately five million homes in Florida built before the new codes, and poised for high performance improvements. If long term financing were available, most homeowners could offset 100% of the cost of these improvements by savings in insurance, utility and other costs. If these improvements are made at a cost of \$20,000, for a modest home, it would represent a potential \$100 billion economic opportunity for Floridians. Paychecks for window manufacturing and installers, solar manufactures and contractors, lighting companies, insulation contractors, plumbers, electricians, roofers, carpenters, landscapers and the construction trades, plus all the trickle up of a working economy as these dollars get spent over and over in our communities

A home is a complex system and improvement goes beyond new light bulbs and appliances. Below, is a framework for high performance strategies that achieve multiple benefits as an integrated whole – it is in the combined effect that the home owner gets the biggest “bang for the buck” and where savings more than cover the costs of investment as required by PACE financing.

- ❖ **ZERO ENERGY**–The transition from an expensive energy hog involves three inter-linked strategies: *Conservation, efficiency, and renewable energy.* There are many new ways to tighten up older buildings. Energy Star appliances, lighting, insulation strategies, windows and high efficiency HVAC systems that control humidity, work better for less. With reduced demand, meeting the balance of the load with solar power becomes feasible. Metrics like Energy Star and HERS ratings are already in place to help track performance upgrades.
- ❖ **WATERSHED BALANCE** - Our homes and communities exist in the larger context of local and regional watersheds. Water is becoming expensive. When your house and yard uses water efficiently, absorbs rainfall, releases clean water, and contributes to regional biodiversity, you are promoting watershed

balance. By using high efficiency appliances and fixtures, cisterns, reuse and modern landscape practices, homeowners can save money and implement a balanced water footprint,

- ❖ **FORTIFIED HOME** – Hurricane safety improvements qualify homes for reduction in their wind insurance premiums. These may include shutters, impact resistant windows and doors, bracing vulnerable gable ends, secondary moisture barriers, roof deck to truss adhesion and other structural improvements.
- ❖ **QUALITY OF LIFE IMPROVEMENTS** – These would include aging in place, multi-generational and *universal* design standards. Healthy indoor air quality, native and edible landscapes, natural pest management and low maintenance homes improve health and save money. Many households are opting for in home care of elderly or infirm family members at significant savings over institutional care.

Taking advantage of this market potential will require leadership and policy, finance and business innovation as well as an informed homeowner.

We can rebuild our communities, create jobs, reduce insurance liability, dependence on foreign oil, and live in a renewed affordable, safe, comfortable home with no out of pocket expense. Sound good to you?

Find out about PACE and urge local and state leaders to support the PACE legislation that has passed both House and Senate. Now is the time to fix up my house and your house and put some folks back to work. The collapse of the housing and credit market can be mitigated here. Now is the time for the **Florida economy** to be revitalized by creating a mainstream public/private initiative for high performance home improvement.

***Property Assessed Clean Energy bonds:** Innovative funding to accelerate the retrofitting of America's buildings for energy independence

A Pace bond is a bond where the proceeds are lent to commercial and residential property owners to finance energy and other performance retrofits (efficiency measures and small renewable energy systems) and who then repay their loans over 20 years via an annual assessment on their property tax bill. PACE bonds can be issued by municipal financing districts or finance companies and the proceeds can be typically used to retrofit both commercial and residential properties.

Notes from Don Borden
Sustainable Systems Meeting

June 16, 2010

Energy, Building and Land

- Boosting energy and resource efficiency in all buildings
- Conserving undeveloped land and natural resources

Food and Purchasing

- Serving sustainably farmed foods
- Composting
- Reducing waste
- Purchasing environmentally-friendly products

Transportation

- Reducing solo commutes
- Boosting alternative transportation
- Cutting transportation-related pollution and environmental impacts

Waste

- Reducing waste sent to landfill by reusing, recycling and composting

Water

- Cutting water use
- Improving conservation
- Protecting water-dependent habitat

- *Specific goals and results are identified and allocated in the specific area heading.*

Objective/Example/scale	Small Businesses Benefit	Reduced monthly bills	Public benefits from reduced public expenditures/bonds
Sustainable redevelopment of residences			
Replacing toilets in older homes with low flush models. This is a cost effective measure to gain water supply capacity through conservation (\$3-5/gallon) compared to new water supply development (\$10-20/gallon)	Plumbing Plumbing supply	Lower monthly water bills for homeowners, more discretionary funds	County bond capacity can be used for other purposes, not tied up in new water supply.
Adding cisterns to residences to harvest rainwater for landscape irrigation and grey water purposes.	Plumbing Electrical New cistern Technology	Lower monthly water bills for home irrigation, more discretionary funds	Reduced demand to use potable water for irrigation, potable water used for potable purposes
Sustainable redevelopment of subdivision			
Pelican Cove example – subdivision built with best practices in the 1970’s is redeveloping their water infrastructure to meet current best practices for household water, irrigation, and stormwater management.	Irrigation Stormwater engineering design and construction Indoor plumbing upgrades Landscape design and installation	Individual homeowner’s and homeowners’ association (HOA) costs for water are reduced.	Stormwater impacts to receiving water bodies are reduced. Potable water is conserved, delaying the need for, and public cost of, new water supply development.

Objective/Example/scale	Small Business	Reduced monthly bills	Reduced public expenditures/bonds
Sustainable redevelopment of business districts			
Englewood Revitalization and Low Impact Development example: Innovative LID stormwater treatment on public property allows businesses to revitalize, beautify, and connect to the waterfront. Bioswales and shared parking reduce capital outlay for individual businesses along	Architecture Stormwater technology Engineering Landscape design and installation		Sustainable alternative to stormwater vaults. More conducive to revitalization of Dearborn St. area.
Sustainable transit-oriented redevelopment			
Example: Redevelop a transit corridor along either Bee Ridge or Fruitville Road. Connect to Bus Rapid Transit at US 41 and TBARTA at I-75. Redevelop aging shopping centers along the corridor to be mixed use transit hubs combining housing, shopping, professional spaces with transit to centers of major employment (downtown, hospital, etc.) Connect residential neighborhoods north and south of the corridor with transit hubs.	Construction trades Architecture Planning Engineering Transportation	Public transit reduces need for second car and associated expenses for insurance, loan payments, and maintenance. Reduces energy consumption.	Transit oriented redevelopment will improve property values along the corridor, creating value for homeowners and county tax rolls.
Develop Green Realty brand for Sarasota County			
35% of the Green Certified homes in Florida are in Sarasota County. 90% of homebuyers nationally believe that environmentally friendly features are important when buying a home. Most Sarasota County realtors are uninformed about green features of homes, and are missing an important marketing opportunity. If local real estate agents learned to about green real estate, Sarasota would develop a brand as a place where green homes are available and valued.	Real estate agents and brokers	Purchasers of green homes will have reduced monthly bills for utilities.	

