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July 17, 2008

Ms. Judy Harlow Florida Public Service Commission Division of Economic Regulation 2540 Shumard Oak Boulevard Tallahassee, Florida 23299-8590 Jharlow@psc.state.fl.us

RE: Post-Workshop Comments - July 11th PSC Workshop on Florida's Renewable Portfolio Standard

Dear Ms. Harlow:

Please accept the following comments from Smurfit-Stone Container Enterprises, Inc. with regard to the Florida Public Service Commission July 11, 2008, Workshop on Establishment of a Renewable Portfolio Standard pursuant to HB 7135.

Smurfit-Stone is the industry's leading integrated containerboard and corrugated packaging producer and is one of the world's largest paper recyclers. The company is a member of the World Business Council for Sustainable Development, the Sustainable Forestry Initiative®, and the Chicago Climate Exchange. Smurfit-Stone generated revenue of \$7.4 billion in 2007, has led the industry in safety every year since 2001, and conducts its business in compliance with the environmental, health, and safety principles of the American Forest & Paper Association.

Smurfit-Stone employs over 1,200 men and women at our three Florida mills, with a payroll of over \$103 million. Our three pulp and paper mills in Florida collectively produce over 1.9 million tons of pulp or paper products - about 23% of our company's pulp and paper production. About 1.4 million tons, or 75% of our annual Florida pulp and paper production, is manufactured using "sustainable" wood resources. Smurfit-Stone is a certified member of the Sustainable Forest Initiative<sup>R</sup> (SFI) and our wood procurement process has been certified by SFI. Our SFI certification requires that we strictly adhere to a rigorous set of standards for the procurement of "sustainable" supplies of pulp wood and the biomass fuel for this production. These SFI standards not only insure harvest of wood in an environmentally responsible manner, they are essential in insuring that our wood and biomass supply is "renewable." Our participation in the SFI program not only promotes the abundance and health of forests, it is good business and will ensure that our principle raw material will be available on a continuing basis. SFI and the practice of sustainable forestry management also is critical to healthy ecosystems and the ability of our forests to mitigate climate change. While we support the underlying objective of the State's proposed Renewable Portfolio Standard (RPS) to reduce dependence on fossil fuels, we are concerned that the RPS will have negative consequences if it does not consider as an overarching priority sustainable forestry management.

We believe there is an important piece missing from Florida's proposed Renewable Portfolio Standard (RPS) rules regarding the use of woody biomass in satisfaction of the RPS limits for Florida's power generation utilities. In Florida's Energy Act, biomass is specifically defined per Section 366.91(2)(a), F.S., as "not limited to" waste biomass. As written, this definition of biomass can be then interpreted to mean that biomass is an unlimited source of "renewable" fuel - like wind and solar power. We do not believe that biomass fuel used without being sustainably managed can be defined as "renewable." The PSC should not ignore the fact that those who would potentially use



biomass or wood for fuel cannot claim it is a "renewable fuel" without proving that procurement of that supply is being "renewed." Forests cannot be used for woody biomass fuel production like agricultural row crops and deforestation does not belong anywhere in the carbon cycle that is characteristic of truly renewable biomass fuels. Agriculture can change crops in 6 months or less and it takes forestry 10 to 20 years to change species and spacing; thus, sustainability of woody biomass is not a short term program. The PSC is urged to consider the concept that "only biomass fuel procured from sustainably managed forests can be defined as renewable biomass fuel".

In the governor's EXECUTIVE ORDER NUMBER 05-241, the word "biomass" only appears in the context of "Renewable fuels". To insure that the Governor's renewable fuel mandate is followed, supplies of woody biomass that are harvested and subsequently burned in satisfaction of Florida's RPS should be assessed to determine the sustainability of that resource. To define the sustainability of woody biomass, a base biomass inventory or basis year must be established to define the current extent of Florida's forests resources. We would recommend that the year 2005 (or 18.7 billion cubic feet of merchantable green forest growth as reported in the attached U.S. Forest Service report) as the baseline for this evaluation. If the PSC does not set a base forest inventory year, the increased harvest for energy in addition to existing forest uses, development and urbanization will almost certainly result in the deforestation of Florida. We propose that the PSC also incorporate the following language regarding sustainability into the RPS to insure that the biomass used for fuel in satisfaction of the RPS mandates is "renewable biomass fuel."

"<u>Renewable Biomass Fuel Sustainability</u>: To ensure the stability and sustainability of Florida's forest for the future, the Florida Department of Agriculture and Consumer Services must require that the inventory of Florida's forests remain stable and priority shall be given to maintaining the health and biodiversity of Florida's forests to ensure sustainability over time. The Florida Department of Agriculture and Consumer Services and the Florida Division of Forestry shall annually verify the overall volume of softwood and hardwood inventory and harvest or loss through fire, hurricane or other means using the annual USDA Forest Service Inventory and Analysis. To the extent that forest derived biomass fuels would be used in satisfaction of Florida's Renewable Portfolio Standard requirements, the Florida Public Service Commission in conjunction with the Florida Department of Agriculture and Consumer Services shall also ensure that the volume of Florida's existing forest inventory will be maintained for future generations and shall not take any actions that would promote a condition where the rate of growth in the forests of Florida would fall below the rate of tree harvest and mortality. In the event that the annual USDA Forest Service inventory and analysis of Florida's forests indicates a negative merchantable wood growth to drain ratio, fuel derived from woody biomass obtained from Florida's private or public forests will be declared "non-renewable woody biomass fuel" and will not be creditable towards Florida's RPS limits for the annual period following the negative growth-to-drain report. The Florida Department of Agriculture and Consumer Services and the Florida Division of Forestry shall take such actions as necessary that would promote replanting of Florida's forests to insure that there is a sustainable supply of biomass fuel and merchantable wood and that the health and biodiversity of Florida forests are maintained over time."

As was reflected in the U.S.D.A information reported by Michele Curtis of Buckeye and Mike Branch of Smurfit-Stone at the July 11, 2008, RPS workshop (attached), the biomass available from Florida's forests is extremely limited. State and Federal ownership of 27% of Florida's Forests, overharvest of hardwood and cypress species, and sub-sustainable tree planting in recent years will likely result in decline of wood and woody biomass inventory at present harvest levels. We believe that some additional sustainable biomass energy is available in Florida and that biomass can be harvested to provide renewable and sustainable supply of raw materials and energy if properly



managed. Incrementally increasing an RPS over time using biomass is not realistic if Florida intends to maintain stability in the State's forests and the carbon neutral biomass benefits obtained from that stability. If biomass resources are not properly and sustainability managed then biomass fuel can become only a temporary and partial fix for clean energy, and we believe it will pose significant cost on Florida communities (i.e., it will cost jobs in sawmills, paper mills and associated businesses). We believe that unmanaged, woody bio-energy businesses will be short term and that permanent job and carbon loss will result along with depletion of habitat for most forest dwelling wildlife at a rate faster than it can be replenished.

We commend the State in adopting the woody biomass economic study that was included in Florida's Energy Bill that was recently signed by the Governor, but feel that it does not go quite far enough if global warming impacts are not considered. Global warming is not limited to Florida and Florida must not pass legislation that ignores the impact of its actions on a global scale. We believe that Florida must examine the carbon cycle impacts and acknowledge the carbon sequestration benefits of properly managed working sustainable forests. Only recently have the negative consequences of the well intentioned policy of U.S. subsidized ethanol production from corn become recognized. We encourage the PSC to fully consider the net consequences to Florida of unintentionally undermining the sustainability of our forests, which have their own significant and positive benefits to mitigating climate change. Setting an RPS or biomass incentives that undermine our ecosystem's ability to mitigate climate change is counterproductive for all citizens.

Thank you for the opportunity to make these comments.

Sincerely,

#### John Davis

John Davis, Vice President & General Manager - Forest Resources Division John Davis (jdavis3@smurfit.com)

Attachments

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Mike Branch Oral Presentation

Florida Public Service Commission RPS Workshop Friday, July 11, 2008

Mr. Chairman and Commission members, my name is Mike Branch and I am employed by Smurfit-Stone Container Corporation in Fernandina Beach. I have been a forester with Smurfit-Stone for 32 years, a graduate of the University of Florida, and have lived and worked in Florida all my life. I have seen most of the forests in Florida harvested twice and witnessed many forests permanently disappear to become cities. The reason I bring this up is to share with you that our forests are shrinking due to urbanization and overharvest. Though forests appear to be plentiful in Florida, remember that it takes about 25 years to develop a mature forest and only 1/25<sup>th</sup> of that forest can be harvested each year if we are to maintain the sustainability of our forests.

Smurfit-Stone believes that we are to a great degree part of the answer to Climate Change and bio-energy in the states where we do business. We have three pulp and paper mills in Florida which represents 23% of our company's pulp and paper production, and employ over 1,200 men and women at these three mills, with a payroll of over \$103 million and over \$5 million in property taxes. Over 60% of our energy at our wood based paper mills in Fernandina and Panama City are generated by biomass in the form of bark, waste woody biomass, and lignin. Our Jacksonville mill is a 100% recycle mill and participates in a combined heat and power partnership with Cedar Bay Generating Station in Jacksonville to maximize the power and steam generation efficiency of that power plant. Smurfit-Stone is a certified member of the Sustainable Forest Initiative<sup>R</sup> (SFI) and strictly adheres to those standards for the procurement of "sustainable" supplies of pulp wood and the biomass fuel for this production. These SFI standards not only insure harvest of wood in an environmentally conscious manner but are essential in insuring that our wood and biomass supply is "renewable". Our participation in the SFI program is good business and essential in insuring that our principle raw material will be available on a continuing basis. As important for our company and our society, SFI and the practice of sustainable forestry management is critical to healthy ecosystems and the ability of our forests to mitigate climate change. We believe that others including the State of Florida should have concerns about how well intended policies such as the proposed Renewable Portfolio Standard (RPS) will have negative consequences if it does not consider as an overarching priority sustainable forestry management.

We thank you for the opportunity to provide input into the Florida RPS rules, and we have a few thoughts to share with you today:

**First** is the need to create a base year of our Renewable Portfolio Standard. If we do not set a base year, the actions of greater energy usage and the depleting of our forests to development and urbanization will certainly compound each other to the point we cannot



achieve any RPS from waste woody biomass. This is imperative if we are realistic about creating a workable RPS. In 2006, Florida consumed approximately 224 million megawatts of electricity. That is a huge number to make any RPS from. I will explain that in a few minutes.

Second, in all that we do with the RPS as it pertains to Climate Change, including woody biomass and cellulosic ethanol, it must be done in a <u>Sustainable manner</u>, and not just the trees that build our nation, but also the wildlife habitat, water recharge and protection, carbon sequestration and storage, aesthetics and Threatened & Endangered species. It is important that the State of Florida, through all agencies, require users of woody biomass to document their sources of wood from a truly renewable managed source. Absent the sustainability of Florida's forests, woody biomass cannot be considered a "renewable resource" under the proposed definition.

Third, as you have seen in the presentation made to the commission today by Buckeye, our state's tree planting has steadily been reduced since 1992 in spite of efforts by forest companies like Buckeye and Smurfit-Stone. Smurfit-Stone produces about 19 million seedlings annually and provides 5 to 7 million seedlings without charge to family forest landowners in Florida and elsewhere to replant the trees that were harvested for the company. According to the Forest service replanting graph shown by Buckeye, we will have fewer trees from 2012 - 2027 due to this reduction of tree planting beginning in 1992. I want to share the volume of woody biomass we have today from our 2005 USFS Forest Inventory and Analysis. This analysis shows that Florida's forests can only support 2% of the Florida energy usage in 2006, which includes all net surplus timber with their tops and limbs, and limbs and tops of what is harvested today. However, this net surplus timber is trees of all size classes from pulpwood to saw timber, veneer, and poles, from the deepest swamps to the highest uplands, and we do not think this is a realistic, sustainable, objective for us to try to meet. We do not know the volume of understory biomass (underbrush) because there is no credible data for this section of the forest. If we used the limbs and tops from the trees we harvest today, 3.321 million green tons, it would represent enough biomass fuel to produce 0.76% of the Florida electric energy usage in 2006. 4,313,931 green tons of woody biomass would represent the value of only 1% of the electric energy Florida consumed in 2006. We consume an enormous amount of energy in Florida, and that number is what dictates the enormous amount of tons of woody biomass to become 1% of the Florida electric energy usage in 2006. Again, that is why we must set a base biomass inventory year for biomass used in the RPS.

**Fourth**, providing a government subsidy for the use of woody biomass for electric production is unfair to existing users of the same resource and an inefficient use of the resource. We believe you must examine the carbon cycle and acknowledge the carbon sequestration benefits of young working sustainable forests, and that the storage of that carbon in the forest and in forest products manufactured goods from the forest is better for Climate Change than the carbon cycle of cutting out the forest and burning it.

Finally, we would urge you to adopt a **sustainable forest rule** to assure that any woody biomass used to satisfy the Florida RPS mandates qualify as "renewable woody biomass



fuels." In fact, we believe you and/or the DEP should have the authority to place biomass plants where they are suitable and sustainable.

Thank you Mr. Chairman and commission members, could I answer any of your questions?

Mike Branch

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#### Approximate Sample Distribution of Measured and Unmeasured Plots



### **Comparison of Variable Radius Point Prism Plot and Fixed Radius Plot**



# **Forest Cover by County**



# **Forest land Area by Year**



### **Forest land and Timberland Area by Year**



### **Timberland Area by Region and Year**



#### **Timberland Area by Region, Year and Stand Origin**



# **Timberland Area by Ownership, 2005**



### **Timberland Area by Year and Ownership**



## **Area by Ownership and Stand Origin**



#### **Timberland Area by Forest-Type Group, 2005**



#### **Timberland Area by Forest-Type Group and Stand Origin**



#### **Timberland Area by Region and Forest-Type Group, 2005**





### All Live Volume by Species Group, 2005



### **Trends in All Live Volume by Species Group**



### **Volume by Species Group and Stand Origin**



#### **Volume by Species Group and Diameter Class, 2005**



#### **Hardwood Volume by Diameter and Year**



### **Cypress Volume by Diameter and Year**



#### **Yellow Pine Volume by Diameter and Year**



#### Yellow Pine Volume by Diameter and Stand Origin, 2005



### **Components of Growth Implications of Net Change**

Gross Growth - Mortality = Net Growth - Removals = Net Change

#### **Average Annual Components of Change for Hardwood**



#### **Average Annual Components of Change for Cypress**



#### **Average Annual Components of Change for Yellow Pine**



#### **Components of Change for Yellow Pine by Stand Origin, 2005**



### **Tree Planting in Florida, 1950–2005**



Year