



Miami-Dade County and Climate Change: What every South Floridian needs to know!

Climate Change and the Economy

5 Reasons why Miami-Dade's business leaders should care about climate change.

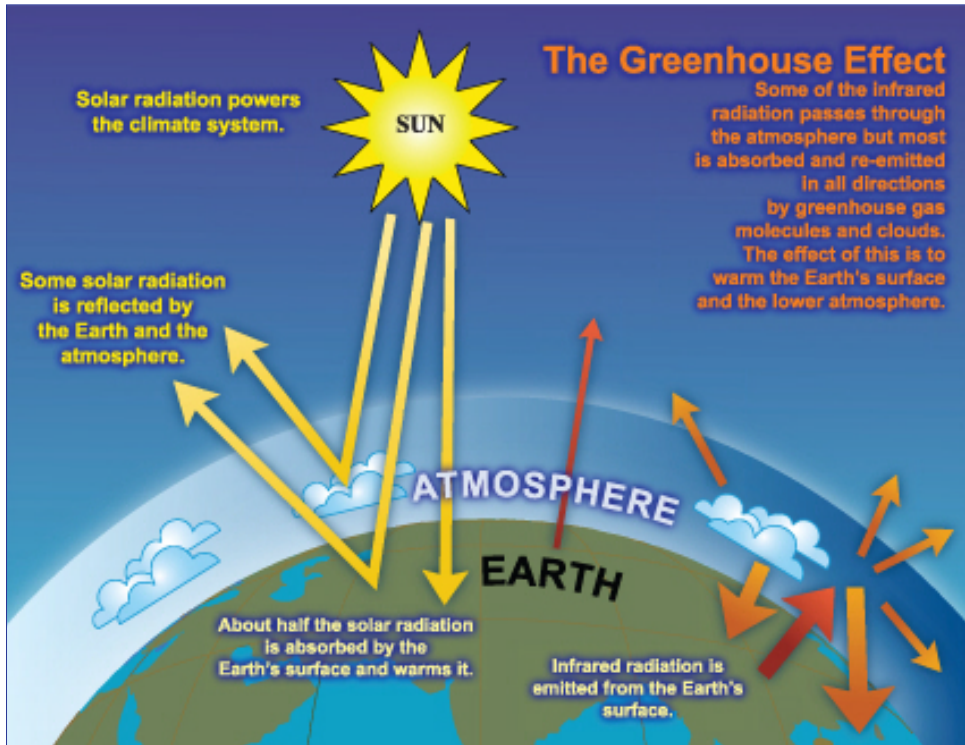


Figure 1. An idealized model of the natural greenhouse effect. Intergovernmental Panel on Climate Change 2007.

1. Climate change will pose economic challenges for Miami-Dade and businesses operating in the region.
2. There are potentially large cost savings and new economic opportunities to be realized by businesses which become more efficient and less wasteful of energy and materials.
3. The private sector can improve its bottom line by shaping and responding to consumer demand for more environmentally friendly products and services. Climate change provides opportunities for new technologies, products, approaches, and business relationships.
4. The private sector will be affected by policies designed to address climate changes – business leaders should help shape cost-effective, practical approaches that will lead to sustainable outcomes.
5. It's the right thing to do. The leadership of the business community is essential to success in the area of climate change.

What is Climate Change?

"Global Climate Change" refers to a changing of the earth's environment as we know it today due to the scientifically documented warming of the earth. Increasing levels of greenhouse gas emissions are causing this warming.

Atmospheric "greenhouse gases" occur naturally in the earth's atmosphere. These gases capture a portion of the sunlight that reaches the earth to warm the planet and support life. Greenhouse gases are also produced by the human use of fossil fuels such as coal, oil, and natural

gas to run our cars, cool and power our homes, schools, and businesses, and in the production and transportation of the goods and services that support our economy.

Based on historic and current greenhouse gas emissions levels, scientific research by the Intergovernmental Panel on Climate Change, a team of climate science experts from all over the world, predicts a worldwide increase in global temperature of 3.1 to 7.2 degrees Fahrenheit (1.8 to 4.0 degrees Celsius) by the end of the century. It may not sound like a lot, but a few degrees increase in overall global temperature will have dramatic impact not only on Miami-Dade County, but the world, changing our natural environment and the way of life we have come to know. Sea level rise, increasing droughts and floods, warmer temperatures in some places, colder temperatures in others, changing habitats and impacts to the plants and animals that currently inhabit them, are a few of the changes we may begin to experience.

"Climate change is a topic that should be on the agenda of every Board of Directors."
- Goldman Sachs



Source: South Florida Regional Planning Council

The good news is that the magnitude of the changes we will experience in the coming years can be made less severe. The stabilization and reduction of greenhouse gases in the atmosphere is possible through a comprehensive approach and partnership of residents, the private sector, and government to become more energy efficient, to become less wasteful of our resources, and to adopt "greener" and "smart" development practices. Small changes by Miami-Dade's 2.4 million residents can add up to big reductions in greenhouse gas emissions! But we must act now. Scientists predict that we have a decade or so to make the necessary changes that will lead to a meaningful decrease in the rate of climate warming.

How is Climate Change likely to impact Miami-Dade County's Economy?

Climate change presents economic challenges and opportunities for Miami-Dade County and the world. Climate change can present a tremendous business opportunity for those firms dedicated to exploring and developing products and solutions to foster a low carbon future. However, without changes to current business practices, climate change will negatively impact our current economic prosperity and quality of life.

Economic opportunities and job growth

Sir Nicholas Stern, former World Bank chief economist, asserts that "tackling climate change is the pro-growth

strategy for the longer term..." Climate change is an opportunity for innovation and revenue generation in low carbon technologies. Firms that focus on developing and selling low carbon goods and services and low carbon energy technologies will have new opportunities to prosper, capitalize on new markets and profit. Such new industries will also create jobs and demand for new types of jobs and products. Miami-Dade County and South Florida are well-positioned to explore the harnessing of ocean, coastal wind and solar energy sources and other green business ideas.

Around the world, investment groups are working to manage the risks and maximize the clean energy opportunities presented by climate change. One large investment group, the Investor Network on Climate Risk, has more than 50 investors and \$4 trillion to invest in low carbon companies and clean technologies.

There are compelling business reasons for reducing emissions of heat trapping greenhouse gases and embracing low carbon business practices. At Governor Crist's July 2007 Climate Change Summit in Miami, Publix Super Markets President Ed Crenshaw stated that the chain had reduced its electrical usage by 7 percent since 2002, saving enough energy to power 44,000 homes. Publix has recycled more than 209,000 tons of cardboard and 7,600 tons of plastic. These efforts have helped Publix save millions of dollars over the years. In 2005, General Electric significantly cut costs through energy efficiency measures while realizing gross revenues of \$10.1 billion through the sale of energy efficient and environmentally advanced products as part of its Eco-Imagination campaign.

Agriculture as a source of renewable energy

In 2006, the Florida Farm to Fuel Initiative was created to enhance the market for and promote the production and distribution of renewable energy from Florida-grown crops, agricultural wastes and residues, and other biomass. Research shows that biofuel production can be a cost effective approach that reduces carbon emissions today while helping farmers and their families.



Source: South Florida Water Management District



Source: National Park Service

Sea level rise will impact ports of commerce while trade will pave the way for an ideas exchange

Miami-Dade County is a hub for the flow of international goods and services, especially from Europe, the Caribbean and Latin America. Each day, tons of international cargo pass through Miami International Airport and the Port of Miami. Sea level rise may hinder these trade flows. Under a one to two foot sea level rise, it is likely that the ocean will begin to inundate the Port of Miami, unless planning measures are taken.

Fortunately, positive relationships with international business partners provide an opportunity to enhance Miami-Dade County's efforts to address climate change and clean energy. An exchange of information and ideas with trading partners and others pursuing low-carbon energy sources and technologies has already begun.

Increase in the cost and risk of doing business and loss of location appeal

Higher energy and insurance costs will result from climate change impacts. As coastlines become more vulnerable to hurricane effects, it is likely that insurance prices will rise or coverage may be revoked, leaving businesses with additional risk and/or higher costs. The expense of post-disaster recovery and business

interruption could increase as storm surge impacts extend farther inland and hurricanes intensify, affecting more homes and businesses. Southeast Florida's summer temperatures are projected to rise as the world's climate changes, increasing summer cooling demand for businesses and homeowners. These cost and risk factors could make the County and the region less attractive to business interests.

Negative impacts to the tourism industry

The tourism and travel industry in Miami-Dade County is a major source of employment and revenue in the County's economy. In 2006, the Greater Miami area drew 11.6 million overnight visitors and was ranked in the top five U.S. tourist destinations. Many of these visitors came to enjoy the County's natural resources - its stunning beaches, marine fisheries and national parks of world significance - and its unbeatable winter weather. Climate change has the potential to adversely impact all of these tourist attractions. Beach erosion and sea level rise will make it more costly and more difficult to maintain and access some of the County's beaches. Deteriorating water quality conditions, coral bleaching, and changing weather patterns are additional challenges that the tourism industry and Miami-Dade County business leaders will face as a result of climate change.

The good news is that the business community can help reduce carbon emissions and benefit from it

The business community can work together along with the public sector to reduce the rate of climate change and prepare for climate change impacts. Scientists tell us that if we cut our emissions, we can stabilize levels of carbon in the atmosphere and prevent severe climate and weather shifts from occurring.

Capitalizing on a low carbon future makes good business sense!

Be a steward of your planet today and adopt low carbon business practices!

Miami-Dade County and the State of Florida are doing their parts to reduce greenhouse gas emissions. The County has appointed a Climate Change Advisory Task force to plan for the future and recommend a climate action plan to the Board of County Commissioners. Florida Governor, Charlie Crist, is committed to addressing this issue at the State level. The Governor recently signed Executive Orders for action at the Climate Change Summit in Miami on July 13, 2007.

Ten Tips for Greening Your Business:

1. Stop throwing away money. Go through your trash. You'll get a new sense of how much it costs to buy, store, and dispose of stuff. Eliminate unnecessary photocopying and reuse packaging for shipping.
2. Get an energy audit. Most local utilities offer businesses free on-site consultations on how they can reduce usage and save money.
3. Go paperless. Encourage e-mailing. When paper is necessary, photocopy on both sides and use old letterhead for scratch.
4. Consider the commute. Provide preferred parking for carpoolers. Offer transit passes to employees who take the bus or subway and bike racks for cyclists. Let workers telecommute.
5. Curb business travel. Teleconference instead of traveling. For must-go trips, keep track of the miles driven and flown and buy "carbon offsets" from a nonprofit like Carbonfund.org to make up for the greenhouse gas emissions.
6. Buy green. Tell suppliers that you're interested in sustainable products and set specific goals for buying recycled, refurbished, or used. Make the environment, and not just price, a factor when purchasing.
7. Detox. Many offices have toxic substances, such as used batteries and copier toner, on hand. Talk to suppliers about alternatives to toxics, and make sure you properly dispose of the ones you can't avoid using.
8. Rethink transportation. Consider the petroleum it takes to ship and receive products. Evaluate the impact of products you buy or sell, and find ways to mitigate those impacts.
9. Get the employees involved. Create a team to lead the company's eco-efforts and determine where you can have the biggest impact for the least amount of money.
10. Communicate. Inform suppliers and customers about your efforts. And get in touch with local regulatory agencies, many of which offer financial incentives to businesses that clean up their acts.

Source: Inc. Magazine, November 2006 <http://www.inc.com/green/>



Useful Websites:

http://www.pewclimate.org/companies_leading_the_way_belc

The Pew Center's Business Environmental Leadership Council (BELC) is now the largest U.S.-based association of corporations focused on addressing the challenges of climate change, with 44 members representing \$2.8 trillion in market capitalization and over 3.8 million employees.

<http://www.myfloridaclimate.com/>

Learn more about Governor Charlie Crist's actions and commitments to address climate change.

<http://www.volunteerflorida.org/>

Join the Serve to Preserve initiative and volunteer to help the environment

<http://www.floridafarmtofuel.com/>

In 2006, the Florida Farm to Fuel Initiative was statutorily created to enhance the market for and promote the production and distribution of renewable energy from Florida-grown crops, agricultural wastes and residues, and other biomass and to enhance the value of agriculture products or expand agribusiness in the State.

<http://www.responsiblepurchasing.org/>

Learn more about how you can make your purchases more socially responsible and environmentally sustainable.

<http://www.southfloridaclimatechange.org/>

Learn more about climate change initiatives, actions and events in the Southeast Florida region.

<http://www.energystar.gov/>

Energy Star is a joint program of the U.S. Environmental Protection Agency and the U.S. Department of Energy that helps Americans save money and protect the environment through energy efficient products and practices.

<http://www.iclei.org/>

ICLEI—Local Governments for Sustainability is an international association of local governments that have made a commitment to sustainable development.

<http://www.natcapsolutions.org/>

Natural Capitalism Solutions (NCS)' mission is to educate senior decision-makers in business, government and civil society about the principles of sustainability.

<http://www.worldchanging.com/>

WorldChanging.com works from a simple premise: that the tools, models and ideas for building a better future lie all around us.

Please contact the South Florida Regional Planning Council with questions and comments related to this fact sheet: sfadmin@sfrpc.com or 954-985-4416



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