


# Memorandum



**Date:** January 30, 2018

**To:** Honorable Chairman Esteban L. Bovo, Jr.  
and Members, Board of County Commissioners

**From:** Carlos A. Gimenez  
Mayor 

**Subject:** Florida Power and Light Joint Participation Agreement

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Since the beginning of my tenure as Mayor, I have worked to make Miami-Dade County a better place for our current residents and for our children and grandchildren. This vision has been the underpinning of my administration. From making Miami-Dade County a vibrant community, with parks and cultural facilities, to developing economic opportunities, making our government affordable, and supporting the 100 Rockefeller Cities resilience efforts, I have made a livable future my focus. As I announced in today's State of the County remarks, we are moving forward with two initiatives that may prove to be the most impactful to this community's future. The first is an effort to utilize reclaimed water to replace the current sources of replenishing water at the Turkey Point Power Plant and the second is a campaign to broaden the use of solar power throughout Miami-Dade County.

Back in 2010, the Board approved a Joint Participation Agreement (JPA) with Florida Power and Light (FPL) through which FPL was going to take up to 90 million gallons per day (MGD) of reclaimed water for cooling the two planned new nuclear units at Turkey Point. While FPL continues to go through the permitting process, conditions have changed, and at this point, the two new nuclear units will not be constructed in the foreseeable future. The 2025 statutory deadline for the County to undertake extensive reuse of reclaimed water under the state Ocean Outfall statute, remains in effect.

As FPL is preparing to seek recertification of the two existing nuclear units at Turkey Point, Units 3 and 4, to meet the electrical needs of South Florida into the future, we have a new opportunity to replace the source of replenishment water used at Turkey Point. Over the past few months, discussions between County and FPL staff have indicated that reclaimed water produced at the South District Wastewater Treatment Plant could be further treated and provide a good solution to cool the existing Unit 5, as well as freshen the cooling canals that currently serve Units 3 and 4. The reclaimed water would replace the brackish Floridan aquifer water currently used to cool Unit 5 and manage the salinity that has built up in the cooling canals, threatening water quality in adjacent ground water.

The Water and Sewer Department is currently considering all practical reclaimed water opportunities by which to meet the State reuse mandate and requirement to end the use of the ocean outfalls. This Advanced Reclaimed Water Project would be the largest individual project by which we will achieve a significant part of the 117 MGD reuse target, as well as continue to address the elevated salinity of the cooling canals. This solution could benefit both the County and FPL, utilizing the shared technology to address goals of both entities.

The Advanced Reclaimed Water Project will apply leading edge water treatment technology to achieve a significant increase in the volume of treated wastewater FPL would be able to re-use, while avoiding continued drawdowns from the Floridan aquifer. The project also offers two additional opportunities that are important to FPL, Miami-Dade County and our environment. The

high quality of the water produced by the project will help re-establish a healthy ecosystem within the cooling canals that will feature the return of seagrasses for natural filtration within the first 10 years of operation. This will be an important step in preparing for the ultimate decommissioning of the cooling canals. The project will also serve as a stepping stone to other reclaimed water projects that could meet 100 percent of our reuse goals and offer a reliable and safe source of water to rehydrate regional wetlands.

Staff has negotiated a new Reclaimed Water JPA to formalize a commitment to planning and preliminary engineering of the treatment and conveyance systems required to meet the project goals described above. This will involve selection of a treatment technology that can reliably meet all local, state, and federal water quality requirements, a pipeline conveyance system to transport water to Turkey Point, and capital and operating cost analyses upon which to base an equitable cost sharing proposal. One of the considerations included in this planning phase is to contemplate the possibility of additional treatment and conveyance capacity to accommodate reuse of the entire South District Wastewater Treatment Plant flow, a portion of which could be used for re-hydration of the coastal wetlands. This would require agreements with and funding support from a variety of state and federal agencies with whom preliminary discussions have been held over the past few years. It is expected that land owned by the County immediately adjacent to the South District Wastewater Treatment Plant would be used for the additional treatment facility required to meet both FPL needs and coastal wetlands needs, if those projects are determined to be feasible.

Should the Board approve this Reclaimed Water JPA, staff will begin to negotiate a definitive Reclaimed Water Services Agreement by which FPL and the County would enter into a binding agreement with explicit financial and performance requirements. Under the schedule in the draft JPA, that agreement is expected to be ready for consideration by the Board and FPL in the summer of 2019, in time for facilities to be constructed and operational by the 2025 target date for a greatly expanded reclaimed water program. This Reclaimed Water JPA creates the opportunity for such an agreement, but it does not bind either party to specific commitments other than cooperative development of the draft definitive agreement.

The opportunity for Miami-Dade County and FPL to work together does not stop at better utilization of wastewater. The County and FPL have also discussed projects, collectively called "Next Generation Energy Projects," that are especially exciting. A second JPA has been developed that will expand the use of solar energy in Miami-Dade County, test new solar technologies, including floating solar, study and implement advanced battery technology, and support the expansion of the use of electric vehicles by installing charging stations in County facilities. FPL will develop and construct at least 223.5 MW of solar power generating projects within the County, which would match the capacity currently utilized by Miami-Dade County government -- the first County in the United States to have installed renewable energy to match County government needs. We will also be pursuing negotiations with FPL to provide support services for our inventory of generators and potentially change the relationship between property owners and the service provider for lighting special taxing districts. Discussions are on-going regarding future franchise agreements.

Should the Board support these two JPAs at future meetings, we will become part of the team that will truly change the nature of electrical energy in Miami-Dade County. We will also be supporting a real opportunity to establish a significant reclaimed water project, which will help end the ocean outfalls and refresh not only the cooling canals, but also potentially benefit the

Everglades, as well. Furthermore, by continuing the operation of the existing nuclear units and sharing these resources and investments, rates paid by our residents for the electrical and water and sewer services will be lower than otherwise. When the goals of these JPAs are achieved, the desires of all stakeholders will be met: affordable and environmentally-friendly utility services will be available for our residents.

County and FPL staff will be scheduling meetings with each of you to provide more details and answer any questions you may have. I look forward to working with you for the benefit of future generations of Miamians.

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