

MEMORANDUM

CCP
Agenda Item No. 2(C)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: April 13, 2022

FROM: Geri Bonzon-Keenan
County Attorney

SUBJECT: Resolution directing the County Mayor to develop and issue a solicitation for a design criteria professional to prepare a design criteria package for a new waste to energy plant to replace the County's Resources Recovery Facility on the same site; directing the County Mayor to place a recommendation on the solicitation for a design criteria professional on an agenda of the Board for the Board's consideration and approval; and directing County Mayor to utilize legally available and budgeted funding in the accomplishment of the foregoing directive or set forth the amount of additional funding that is necessary

The accompanying resolution was prepared and placed on the agenda at the request of Prime Sponsor Chairman Jose "Pepe" Diaz.



Geri Bonzon-Keenan
County Attorney

GBK/smm



MEMORANDUM
(Revised)

TO: Honorable Chairman Jose "Pepe" Diaz
and Members, Board of County Commissioners

DATE: May 3, 2022

FROM: 
Gen Bonzon-Keenan
County Attorney

SUBJECT: Agenda Item No.

Please note any items checked.

- "3-Day Rule" for committees applicable if raised
- 6 weeks required between first reading and public hearing
- 4 weeks notification to municipal officials required prior to public hearing
- Decreases revenues or increases expenditures without balancing budget
- Budget required
- Statement of fiscal impact required
- Statement of social equity required
- Ordinance creating a new board requires detailed County Mayor's report for public hearing
- No committee review
- Applicable legislation requires more than a majority vote (i.e., 2/3's present ____, 2/3 membership ____, 3/5's ____, unanimous ____, CDMP 7 vote requirement per 2-116.1(3)(h) or (4)(c) ____, CDMP 2/3 vote requirement per 2-116.1(3)(h) or (4)(c) ____, or CDMP 9 vote requirement per 2-116.1(4)(c)(2) ____) to approve
- Current information regarding funding source, index code and available balance, and available capacity (if debt is contemplated) required

Approved _____ Mayor
Veto _____
Override _____

Agenda Item No.
5-3-22

RESOLUTION NO. _____

RESOLUTION DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO DEVELOP AND ISSUE A SOLICITATION FOR A DESIGN CRITERIA PROFESSIONAL TO PREPARE A DESIGN CRITERIA PACKAGE FOR A NEW WASTE TO ENERGY PLANT TO REPLACE THE COUNTY'S RESOURCES RECOVERY FACILITY ON THE SAME SITE; DIRECTING THE COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO PLACE A RECOMMENDATION ON THE SOLICITATION FOR A DESIGN CRITERIA PROFESSIONAL ON AN AGENDA OF THE BOARD FOR THE BOARD'S CONSIDERATION AND APPROVAL; AND DIRECTING COUNTY MAYOR OR COUNTY MAYOR'S DESIGNEE TO UTILIZE LEGALLY AVAILABLE AND BUDGETED FUNDING IN THE ACCOMPLISHMENT OF THE FOREGOING DIRECTIVE OR SET FORTH THE AMOUNT OF ADDITIONAL FUNDING THAT IS NECESSARY

WHEREAS, the Miami-Dade County Resources Recovery Facility ("RRF"), located in Doral, Florida began commercial operations in 1982 and originally sited on 100 acres of land including the adjacent ash fill; and

WHEREAS, for 19 years the RRF has resided in the City of Doral, and at present is surrounded by light industrial to the south, and residential to the west and north; and

WHEREAS, the RRF is the keystone of the County's solid waste system, and processes over 4,000 tons of solid waste per day, while operating 24 hours a day, 365 days a year, resulting in an average annual processing of 1,040,000 tons of waste, which represents approximately 62 percent of the total waste currently produced by the County; and

WHEREAS, the original rationale for the RRF was to reduce the volume of material going into the County landfill; and

WHEREAS, since 1982, the RRF has (i) processed more than 40 million tons of solid waste, (ii) reduced it to 6.5 million tons of stable non-hazardous ash through combustion, (iii) recovered more than 360,000 tons of ferrous and 60,000 tons of non-ferrous metal, and (iv) produced more than 10 million MWhs of electricity; and

WHEREAS, the resultant ash which goes into the landfill is tested every six months to ensure non-toxicity; and

WHEREAS, since 2020, Covanta, Titan Cement and the County have been testing the use of the bottom ash from the WTE process to replace coal fly ash in cement kilns; and

WHEREAS, as the RRF also produces 300,000 MWhs of electricity (enough to power 30,000 homes), and recycles 18,000 tons of ferrous metal (equivalent to 15,000 automobiles) and 3,000 tons of non-ferrous metals (equivalent to 161 million beverage cans), annually; and

WHEREAS, the power generated at the RRF is sold to a private company and supplied to the electrical power grid; and

WHEREAS, the RRF serves the residents of unincorporated Miami-Dade County, 10 municipalities where the County provides waste collection services, and 15 municipalities that have executed long-term waste disposal interlocal agreements; and

WHEREAS, the RRF serves numerous private waste haulers that provide commercial waste collection services throughout the County; and

WHEREAS, in 1988, the State of Florida (the “State”) passed the Solid Waste Management Act, which among other things included a 30 percent goal for the recycling of county waste by the end of 1994; and

WHEREAS, in 1993, counties with populations under 50,000 were exempted from the 30 percent recycling goal; and

WHEREAS, in 2008, the State passed the Energy Climate Change, and Economic Security Act, which established a new recycling goal of 75 percent to be achieved by 2020; and

WHEREAS, on July 17, 2012, the Board passed and adopted Resolution No. R-639-12 authorizing execution of the Fourth Amended and Restated Operations and Management Agreement between the County and Covanta Dade Renewable Energy, LTD (“Covanta”), for the operation of the RRF; and

WHEREAS, the useful life of waste to energy (“WTE”) facilities like the RRF is approximately 30 to 40 years and the RRF is 40 years old and approaching the end of its useful life; and

WHEREAS, the RRF is still operating at capacity and below its federally set emissions operating standards ceiling, Covanta estimates that except for a complete refurbishment and with selective capital investment, the RRF might operate an additional 10 years; and

WHEREAS, the County would benefit from the design, construction, and operation of a state-of-the-art WTE plant to replace the RRF, which will generate several efficiencies and immediate benefits; and

WHEREAS, based on the latest technological advances, a new WTE facility will have significantly better operational efficiencies with higher outputs of energy and captured recyclables (i.e., metals), and simultaneously have a lower emissions profile while virtually eliminating odors outside of the facility; and

WHEREAS, environmentally, WTE is superior to landfilling, and modern WTE facilities are the preferred alternative to landfilling per the waste hierarchy of the United States Environmental Protection Agency (“EPA”), the European Union (“EU”), and the United Nations (“UN”); and

WHEREAS, existing WTE plants by law also contain the Maximum Achievable Control Technology for emissions, and most WTE plants operate well below the allowable limits set by the EPA; and

WHEREAS, the EPA, EU and UN have ranked the most environmentally sound strategies for solid waste; and

WHEREAS, the waste management hierarchy used by the EPA, and adopted by the EU, UN and many other countries, has established that once reduction, reuse and recycling take place, the preferred method of waste disposal is WTE over landfills; and

WHEREAS, WTE is (i) recognized as a net reducer of greenhouse gas, and (ii) a key factor in reducing methane emissions, compared to landfilling and landfills, respectively; and

WHEREAS, studies have shown that U.S. counties and municipalities with WTE plants have better recycling rates than their non-WTE counterparts; and

WHEREAS, there are over 2,500 WTE facilities worldwide; and

WHEREAS, mass burn combustion (“Mass Burn”), the controlled incineration of organic or inorganic waste is a proven waste processing technology; and

WHEREAS, in mass burn/waterwall combustion (“Mass Burn/Waterwall”), solid waste is placed directly into the feed chute of the incineration system without any pre-processing, except for the removal of large non-combustible items (i.e., refrigerators, washing machines, microwave ovens), and gravity fed onto a moving grate at the bottom of the combustion chamber into a furnace with walls built with water tubes; and

WHEREAS, a Mass Burn/Waterwall facility would be easier to maintain than the RRF, electric output would more than double, and advanced metal recovery could also be incorporated to increase the amount of recycled metal recovered; and

WHEREAS, modern WTE facilities contain continuous emissions monitoring systems and pollution control systems that enable them to capture the majority of the pollutants released during combustion, and the pollution control systems include scrubbers which inject lime to control acid gasses (e.g., HCl SO₂) and activated carbon to capture mercury and dioxins; and

WHEREAS, the Miami-Dade Department of Solid Waste Management (“DSWM”) 2020 Master Plan includes a recommendation for the construction of a new WTE facility to meet future demand of County residents; and

WHEREAS, it is in the best interests of the County that a new WTE facility is not privatized; and

WHEREAS, the preliminary estimated cost for a 4,000 ton plus, state of the art Mass Burn WTE facility is \$900,000,000.00 to \$1,500,000,000.00; and

WHEREAS, the design, permitting and construction of a WTE facility at the same site as the RRF with modified permits would take an estimated seven years, and would expedite the elimination of the RRF, and virtually help eliminate odors outside of the facility in the City of Doral; and

WHEREAS, the construction of a new WTE facility at the same site as the RRF saves the County the time delay from identification or acquisition of a new site, additional permitting and zoning approvals, and other requirements; and

WHEREAS, a new Mass Burn/Waterwall facility would assist in community engagement by reducing odors and truck traffic in the surrounding area, would have a smaller footprint, and could be architecturally designed to better align itself optically with the area; and

WHEREAS, an initial step in the design and construction of a County facility such as a new WTE plant is the selection of a design criteria professional to prepare the design criteria package necessary to solicit the services of a design builder; and

WHEREAS, this Board desires to initiate the steps necessary for the design and construction of a new WTE plant to replace the County's RRF on the same site,

NOW, THEREFORE, BE IT RESOLVED BY THE BOARD OF COUNTY COMMISSIONERS OF MIAMI-DADE COUNTY, FLORIDA, that the Board directs the County Mayor or County Mayor's designee, within 60 days of the effective date of this resolution, to develop and issue a solicitation for a design criteria professional to prepare a design criteria package for a new waste to energy plant to replace the County's RRF on the same site. Upon the conclusion of any negotiations, the County Mayor or County Mayor's designee is directed to place the recommendation on the solicitation for the design criteria professional on an agenda of the full Board without committee review pursuant to Ordinance No. 14-65, for the Board's consideration and approval. The Board further directs the County Mayor or County Mayor's designee to use all legally available and budgeted funding to accomplish the directive set forth herein; if there is insufficient budgeted and legally available funding to accomplish the foregoing directive, the County Mayor or County Mayor's designee shall set forth in its recommendation what additional funding is required to obtain the services of the design criteria professional.

The Prime Sponsor of the foregoing resolution is Chairman Jose "Pepe" Diaz. It was offered by Commissioner _____, who moved its adoption. The motion was seconded by Commissioner _____ and upon being put to a vote, the vote was as follows:

Jose "Pepe" Diaz, Chairman
Oliver G. Gilbert, III, Vice-Chairman

Sen. René García

Keon Hardemon

Sally A. Heyman

Danielle Cohen Higgins

Eileen Higgins

Joe A. Martinez

Kionne L. McGhee

Jean Monestime

Raquel A. Regalado

Rebeca Sosa

Sen. Javier D. Souto

The Chairperson thereupon declared this resolution duly passed and adopted this 3rd day of May, 2022. This resolution shall become effective upon the earlier of (1) 10 days after the date of its adoption unless vetoed by the County Mayor, and if vetoed, shall become effective only upon an override by this Board, or (2) approval by the County Mayor of this resolution and the filing of this approval with the Clerk of the Board.

MIAMI-DADE COUNTY, FLORIDA
BY ITS BOARD OF
COUNTY COMMISSIONERS

HARVEY RUVIN, CLERK

By: _____
Deputy Clerk

Approved by County Attorney as
to form and legal sufficiency:



David Stephen Hope