

HOUSE OF REPRESENTATIVES STAFF ANALYSIS

BILL #: CS/CS/HB 1419 Financial Assistance for Municipal Solid Waste-to-Energy Facilities

SPONSOR(S): Appropriations Committee, Tourism, Infrastructure & Energy Subcommittee, Mariano

TIED BILLS: IDEN./SIM. **BILLS:** SB 1764

REFERENCE	ACTION	ANALYST	STAFF DIRECTOR or BUDGET/POLICY CHIEF
1) Tourism, Infrastructure & Energy Subcommittee	13 Y, 4 N, As CS	Walsh	Keating
2) Appropriations Committee	22 Y, 1 N, As CS	White	Pridgeon
3) Commerce Committee			

SUMMARY ANALYSIS

Energy recovery from waste is the conversion of non-recyclable waste materials into useable heat, electricity, or fuel. Municipal solid waste (MSW), otherwise known as trash or garbage, can be used to produce energy at Waste-to-Energy (WTE) plants and landfills. For over 30 years, WTE has been a part of Florida's solid waste management program. Florida has the largest MSW burn capacity in the country.

Utilities are required to purchase power, at the utility's full avoided cost, from "qualifying facilities" (QF) which fall into two categories: qualifying small power production facilities and qualifying cogeneration facilities. In Florida, investor-owned utilities (IOUs) must annually establish and file with the Public Service Commission (PSC) a standard offer contract with terms, conditions, and payments based on projected costs for each fossil-fueled generating unit type identified in the IOU's ten-year site plan. Payment terms and conditions for QFs are based on the projected cost to construct and operate the IOU's next planned generation unit. The standard offer contract provides a basis for developing negotiated contracts. "As-available" energy contracts are also an option for QFs, including municipal solid waste-to-energy (MSWE) facilities.

The bill creates the Municipal Solid Waste-to-Energy Program (program) within the Department of Agriculture and Consumer Services (DACS). The program provides financial assistance grants to MSWE facilities that experience a reduction in capacity payments upon renewal or amendment of an existing contract with an IOU. Under the bill, the financial assistance grants will provide MSWE facilities funding at a rate of two cents per kilowatt-hour of electricity purchased by an electric utility during the preceding state fiscal year, not to exceed the total of the capacity and energy payment the MSWE facility received during the last year of its prior power purchase agreement with the utility entered into before January 1, 2022, and the total of the capacity and energy payment the MSWE facility received under a new or amended power purchase agreement during the preceding fiscal year.

The program also provides incentive grants, which will provide facilities with matching funds on a dollar-for-dollar basis to assist with planning and design for constructing, upgrading, or expanding MSWE facilities, including necessary legal or administrative expenses. The bill authorizes DACS to adopt rules to implement the program.

The bill provides a \$100 million appropriation in recurring funds from the General Revenue Fund to DACS for the 2022-2023 fiscal year for the new program. The bill also appropriates \$149,832 in recurring funds and \$9,984 in nonrecurring funds from the General Revenue Fund and two full-time equivalent positions to DACS for the 2022-2023 fiscal year to assist with the program. The bill may result in a positive fiscal impact to local revenues if publicly-owned MSWE facilities qualify for the program.

The bill provides an effective date of July 1, 2022.

FULL ANALYSIS

I. SUBSTANTIVE ANALYSIS

A. EFFECT OF PROPOSED CHANGES:

Present Situation

Municipal Solid Waste-to-Energy

Energy recovery from waste is the conversion of non-recyclable waste materials into useable heat, electricity, or fuel. This process is often called waste-to-energy (WTE), and the conversion may use a few different methods, including combustion, gasification, pyrolyzation, anaerobic digestion, and landfill gas recovery.¹

Municipal solid waste (MSW), otherwise known as trash or garbage, can be used to produce energy at WTE plants and landfills.² At this type of facility, MSW is typically unloaded from collection trucks and placed in storage, then an overhead crane sorts the waste and lifts it into a combustion chamber to be burned. The heat released from burning converts water to steam in a boiler that is used to generate electricity.^{3,4} MSW may contain:

- Biomass or biogenic (plant or animal products) materials such as paper, cardboard, food waste, grass clippings, leaves, wood, and leather products;
- Nonbiomass combustible materials such as plastics and other synthetic materials made from petroleum; and
- Noncombustible materials such as glass and metals.⁵

In 2018, about 12 percent of the 292 million tons of MSW produced in the U.S. was burned in WTE plants.⁶ The remaining MSW was managed as follows:

- 50 percent was landfilled;
- 23.6 percent was recycled;
- 8.5 percent was composted; and
- 6.1 percent is listed as “other.”⁷

In 2020, 65 U.S. power plants generated around 13.5 billion kilowatt-hours of electricity from 25 million tons of MSW. In addition to producing electricity, WTE is a waste management option. Utilizing WTE methods reduces the amount of material otherwise buried in landfills by about 87 percent. A WTE plant can reduce 2,000 pounds of MSW down to around 300 to 600 pounds of ash.⁸

Energy recovery from waste is encouraged by the U.S. Environmental Protection Agency and is recognized as a renewable energy source. WTE facilities produce relatively clean, renewable energy through the combustion of municipal solid waste in specially designed power plants equipped with pollution control equipment to clean emissions.⁹

Municipal Solid Waste-to-Energy in Florida

¹ U.S. Environmental Protection Agency, *Energy Recovery from the Combustion of Municipal Solid Waste (MSW)*, <https://www.epa.gov/smm/energy-recovery-combustion-municipal-solid-waste-msw> (last visited Feb. 9, 2022).

² U.S. Energy Information Admin., *Biomass explained, Waste-to-energy (Municipal Solid Waste), Basics*, <https://www.eia.gov/energyexplained/biomass/waste-to-energy.php> (last visited Feb. 9, 2022).

³ U.S. Energy Information Admin., *Biomass explained, Waste-to-energy (Municipal Solid Waste), In Depth, How waste-to-energy plants work*, <https://www.eia.gov/energyexplained/biomass/waste-to-energy-in-depth.php> (last visited Feb. 9, 2022).

⁴ U.S. Environmental Protection Agency, *supra* note 1.

⁵ U.S. Energy Information Admin., *supra* note 2.

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ U.S. Environmental Protection Agency, *supra* note 1.

For over 30 years, WTE has been a part of Florida's solid waste management program.¹⁰ In the 1993 revisions to the 1988 Solid Waste Management Act, the Legislature recognized the need to use an integrated approach to municipal solid waste management by using waste reduction, recycling, WTE facilities, and landfills.¹¹

Current law defines the term "waste-to-energy facility" as a facility that uses an enclosed device using controlled combustion to thermally break down solid, liquid, or gaseous combustible solid waste to an ash residue that contains little or no combustible material and that produces electricity, steam, or other energy as a result. Under current law, the term does not include facilities that primarily burn fuels other than solid waste even if such facilities also burn some solid waste as a fuel supplement.^{12,13}

Florida has the largest MSW burn capacity of any state in the country. The state went from having one small WTE plant in 1982 to operating twelve facilities.¹⁴ The following counties have at least one facility:

- Bay
- Broward
- Miami-Dade
- Hillsborough
- Lake
- Palm Beach
- Pasco
- Pinellas¹⁵

Florida Public Service Commission and Regulation of Investor-Owned Electric Utilities

The Florida Public Service Commission (PSC) is an arm of the legislative branch of government.¹⁶ The role of the PSC is to ensure that Florida's consumers receive some of their most essential services – electric, natural gas, telephone, water, and wastewater – in a safe, affordable, and reliable manner. In doing so, the PSC exercises regulatory authority over utilities in one or more of three key areas: rate base/economic regulation; competitive market oversight; and monitoring of safety, reliability, and service issues.¹⁷

The PSC regulates the rates and services of investor-owned electric utilities (IOUs). There are four IOUs in Florida: Florida Power & Light Company (FPL),¹⁸ Duke Energy Florida (Duke), Tampa Electric Company (TECO), and Florida Public Utilities Corporation.¹⁹ Together, these four IOUs serve over 8.1 million customers in Florida.²⁰ IOU rates and revenues are regulated by the PSC.²¹ The IOUs must file periodic earnings reports, which allow the PSC to monitor earnings levels on an ongoing basis and adjust customer rates if a company appears to be overearning.²² IOUs must provide sufficient and

¹⁰ See s. 403.7061(1), F.S.

¹¹ *Id.*

¹² S. 403.1061, F.S.

¹³ The term also does not include facilities that burn vegetative, agricultural, or silvicultural wastes, bagasse, clean dry wood, methane or other landfill gas, wood fuel derived from construction or demolition debris, or waste tires, alone or in combination with fossil fuels. *Id.*

¹⁴ Florida Department of Environmental Protection, *Waste-to-Energy*, <https://floridadep.gov/waste/permitting-compliance-assistance/content/waste-energy> (last visited Feb. 9, 2022).

¹⁵ Florida Department of Environmental Protection, *Florida Waste-to-Energy Facilities*, https://floridadep.gov/sites/default/files/WTE_Contacts-2016.pdf (last visited Feb. 9, 2022).

¹⁶ S. 350.001, F.S.

¹⁷ Florida Public Service Commission, <http://www.psc.state.fl.us/> (last visited Feb. 10, 2022).

¹⁸ FPL acquired Gulf Power Company in 2019 and merged as of January 3, 2022, for ratemaking purposes.

¹⁹ Florida Department of Agriculture and Consumer Services, *Electric Utilities*, <https://www.fdacs.gov/Energy/Florida-Energy-Clearinghouse/Electric-Utilities> (last visited Feb. 10, 2022).

²⁰ Florida Public Service Commission, *Facts & Figures of the Florida Utility Industry* (2021), p. 4, available at <http://www.psc.state.fl.us/Files/PDF/Publications/Reports/General/Factsandfigures/April%202021.pdf> (last visited Feb. 10, 2022).

²¹ Florida Department of Agriculture and Consumer Services, *Electric Utilities*, *supra* at n. 20.

²² Florida Public Service Commission, *Florida PSC 2020 Annual Report*, p. 6, available at <http://www.psc.state.fl.us/Files/PDF/Publications/Reports/General/Annualreports/2020.pdf> (last visited Feb. 10, 2022).

adequate service to customers.²³ To fulfill that obligation, utilities monitor customer usage patterns in order to plan for future energy needs.

Required IOU Purchases from Qualifying Facilities

In 1978, the federal government enacted the Public Utility Regulatory Policies Act (PURPA),²⁴ which required promotion of energy efficiency and use of renewables. PURPA requires utilities to purchase power, at the utility's full avoided cost, from "qualifying facilities" (QF)²⁵ which fall into two categories: qualifying small power production facilities and qualifying cogeneration facilities.²⁶ These facilities can include WTE facilities. PURPA directed the Federal Energy Regulatory Commission to implement this requirement, which in turn directed the states to do the same. In response, the Florida Legislature directed utilities to purchase power from cogenerators and small power producers.²⁷

An IOU's full avoided cost is the incremental cost of electric energy or capacity²⁸ which, but for the purchase from cogenerators or small power producers, the IOU would have to generate itself or purchase from another source.²⁹ Full avoided cost is based upon either the utility's cost to construct and operate its next planned generating unit or the cost of purchasing capacity and energy from generating units owned by other utilities in the wholesale market.³⁰

Power Purchase Agreements

IOUs must annually establish and file with the PSC a standard offer contract with terms, conditions, and payments based on projected costs for each fossil-fueled generating unit type identified in the IOU's ten-year site plan. Payment terms and conditions for QFs are based on the projected cost to construct and operate the IOU's next planned generation unit. Essentially, the next planned unit becomes an avoided unit and the basis for the avoided costs.³¹

The standard offer contract provides a basis for developing negotiated contracts.³² Rule 25-17.240, F.A.C., encourages IOUs and generating facilities to negotiate contracts for firm capacity and energy to provide fuel diversity, fuel price stability, and energy security. The PSC addresses petitions by IOUs for approval of cost recovery of negotiated contracts between the IOU and the QFs. The PSC's review considers various matters including whether the contract is at or below the IOU's avoided cost.³³

Payments to Qualified Facilities

"As-available" energy contracts are an option for QFs, including municipal solid waste-to-energy (MSWE) facilities. These contracts are not subject to the PSC's approval but must be filed with the PSC within ten working days of being signed.³⁴ As-available energy is energy produced and sold on an hour-by-hour basis for which contractual commitments regarding the quantity and time of delivery are not

²³ S. 366.03, F.S.

²⁴ 16 U.S.C. s.2601 et seq.

²⁵ See Federal Energy Regulatory Commission, *PURPA Qualifying Facilities*, <https://www.ferc.gov/qf> (last visited Feb. 10, 2022).

²⁶ *Id.*

²⁷ S. 366.051, F.S.

²⁸ Capacity is the maximum electric output, in megawatts, that an electricity generator can produce under ideal conditions. See U.S. Energy Information Administration, *What is the difference between electricity generation capacity and electricity generation?*, <https://www.eia.gov/tools/faqs/faq.php?id=101&t=3> (last visited Feb. 10, 2022).

²⁹ S. 366.051, F.S.

³⁰ Florida Public Service Commission, *States' Electric Restructuring Activities Update: Wholesale Sales*, <http://www.psc.state.fl.us/Publications/ElectricRestructuringDetails#4> (last visited Feb. 10, 2022).

³¹ Florida Public Service Commission, Agency Analysis of 2022 House Bill 1419, p. 1 (Jan. 20, 2022).

³² *Id.*

³³ *Id.*

³⁴ R. 25-17.0825(1)(b), F.A.C.; Florida Public Service Commission, *supra* note 33, p. 2.

required.³⁵ As-available energy is purchased at a rate equal to the utility's hourly incremental system fuel cost, which reflects the highest fuel cost of generation each hour.³⁶

According to the PSC, the following WTE facilities receive as-available energy payments from FPL:

- Broward County Resource Recovery – South as-available QF
- Brevard County
- Miami Dade Resource Recovery
- Lee County Solid Waste³⁷

A QF is eligible for capacity and energy payments under a firm contract if the QF can meet certain contractual provisions as to the quantity, time, and reliability of the delivery of electricity.³⁸ Capacity is the maximum electric output, in megawatts, that an electricity generator can produce under ideal conditions.³⁹

To promote alternative and renewable energy generation, the PSC requires IOUs to offer multiple capacity payment options, including early payments or levelized payments. The different payment options allow QFs flexibility to best meet their financial needs. If an early capacity payment option is selected, then the QF will begin receiving capacity payments earlier than the in-service date of the avoided unit and payments will generally be lower in the later years of the contract.⁴⁰

According to the PSC, the following six WTE facilities are operating under active firm contracts with their host IOU:

- Pinellas County Resource Recovery, with Duke, ending December 2024
- Pasco County Resource Recovery, with Duke, ending December 2024
- Broward County Resource Recovery - South QF, with FPL, ending December 2026
- Palm Beach County Solid Waste Authority 1, with FPL, ending March 2034
- Palm Beach County Solid Waste Authority 2, with FPL, ending March 2034
- Bay County/Engen LLC, with FPL/Gulf, ending July 2023⁴¹

Office of Energy in the Department of Agriculture and Consumer Services

The Office of Energy (office) within DACS is the legislatively designated state energy policy and program development office in Florida. The office evaluates energy-related studies, analyses, and stakeholder input in order to make recommendations regarding energy policies and programs to the Governor and Legislature. The office uses available state and federal funding to develop and manage energy efficiency, renewable energy, and energy education programs throughout the state.⁴²

Effect of the Bill

The bill provides findings that:

- It is in the public interest to promote the development of renewable energy resources in Florida;

³⁵ R. 25-17.0825, F.A.C.

³⁶ Florida Public Service Commission, *supra* note 33, p. 2.

³⁷ *Id.*

³⁸ *Id.* at 1.

³⁹ See U.S. Energy Information Administration, *What is the difference between electricity generation capacity and electricity generation?*, <https://www.eia.gov/tools/faqs/faq.php?id=101&t=3> (last visited Feb. 11, 2022).

⁴⁰ Florida Public Service Commission, *supra* note 33, p. 1.

⁴¹ *Id.* at 2.

⁴² DACS, Office of Energy, <https://www.fdacs.gov/Divisions-Offices/Energy> (last visited Feb. 18, 2022).

- MSWE facilities⁴³ using biomass as fuel or an energy source are deemed to be producing renewable energy;
- MSWE facilities provide a practical and sustainable solution to reducing landfill waste, reducing volume by about 87 percent;
- Recognize the benefits that MSWE facilities contribute to Florida and its local communities; and
- The Legislature intends to incentivize the production and sale of energy from MSWE facilities through grant programs.

The bill creates the Municipal Solid Waste-to-Energy Program (program) within the Department of Agriculture and Consumer Services (DACS). The purpose of the program is to provide financial assistance grants and incentive grants to MSWE facilities. The bill provides a \$100 million appropriation in recurring funds from the General Revenue Fund to DACS to administer the program. The bill also appropriates \$149,832 in recurring funds and \$9,984 in nonrecurring funds from the General Revenue Fund to DACS for the 2022-2023 fiscal year. The bill authorizes two full-time equivalent positions with an associated salary rate of 80,540 for the purpose of implementing the bill.

The bill provides that in order to qualify for the program, the owner of an MSWE must have previously entered into a power purchase agreement with an electric utility before January 1, 2022, that included capacity and energy payments and must have entered into a new or amended power purchase agreement that either no longer includes capacity payments or includes capacity and energy payments in an amount less than the total of the capacity and energy payments the MSWE facility received under its prior power purchase agreement with the utility. The facility owner must submit an application to DACS that includes the MSWE facility's name, the name of the utility purchasing the electric power from the MSWE facility, the total capacity and energy payment the MSWE facility received during the last year of the power purchase agreement entered into before January 1, 2022, and the amount of electric power delivered to and the total amount paid for such power by an electric utility pursuant to a new or amended power purchase agreement during the preceding state fiscal year.

Under the bill, the financial assistance grants will provide MSWE facilities funding at a rate of two cents per kilowatt-hour of electricity purchased by an electric utility during the preceding state fiscal year, not to exceed the difference between the total of the capacity and energy payment the MSWE facility received during the last year of its power purchase agreement with the utility entered into before January 1, 2022, and the total of the capacity and energy payment the MSWE facility received under a new or amended power purchase agreement during the preceding fiscal year. If funds are insufficient to cover every qualifying kilowatt-hour from all qualifying applicants, DACS must prorate the available funds on an equitable basis.

The bill requires DACS to establish a process in coordination with the PSC to verify eligibility and the amount of energy purchased from the facility by an electric utility.

Under the bill, the incentive grants will provide facilities with matching funds on a dollar-for-dollar basis to assist with planning and design for constructing, upgrading, or expanding MSWE facilities, including necessary legal or administrative expenses.

The bill provides that to qualify for the incentive grants, a facility owner must apply to DACS and demonstrate that the project is cost-effective, permissible, and implementable and complies with s. 403.7061, F.S., which establishes the requirements for review of new WTE facility capacity by the Department of Environmental Protection (DEP).

⁴³ The bill defines "municipal solid waste-to-energy facility" as a publicly owned or government affiliate-owned facility that uses an enclosed device using controlled combustion to thermally break down solid waste to an ash residue that contains little or no combustible material and that produces electricity, steam, or other energy as a result. The term does not include facilities that primarily burn fuels other than solid waste even if such facilities also burn some solid waste as a fuel supplement. The term also does not include facilities that primarily burn vegetative, agricultural, or silvicultural wastes, bagasse, clean dry wood, methane or other landfill gas, wood fuel derived from construction or demolition debris, or waste tires, alone or in combination with fossil fuels.

The bill requires DEP to assist DACS with determining eligibility and with establishing requirements to ensure long-term and efficient operation and maintenance of such facilities.

The bill requires DACS to perform adequate overview of applications and awards, including technical review, regular inspections, disbursement approvals, and auditing. The bill provides that funds awarded under the incentive grant program may not be used to promote, establish, or convert a residential collection system that does not provide for the separate collection of residential solid waste from recovered materials as defined in s. 403.703, F.S. The bill further provides that DACS must terminate or require repayment of incentive grant funds if it determines that the program requirements are not being met.

The bill states that any funds appropriated to the program must first be used for the financial assistance grants and any remaining funds in a fiscal year may be used for the incentive grants.

The bill requires DACS to adopt rules to implement and administer the program. The rules must:

- Establish an application process for both grant types;
- Include application deadlines; and
- Establish supporting documentation to be provided to DACS.

The bill requires DACS to consult with the PSC in developing rules for the financial assistance grants.

The bill provides that any funds allocated for the purpose of the bill which are not disbursed by June 30th of the fiscal year in which the funds are allocated may be carried forward for up to five years after the effective date of the original appropriation.

B. SECTION DIRECTORY:

Section 1: Creates s. 377.814, F.S., which establishes the Municipal Solid Waste-to-Energy Program.

Section 2: Appropriates recurring funds from the General Revenue Fund.

Section 3: Appropriates recurring and nonrecurring funds from the General Revenue Fund.

Section 4: Provides an effective date of July 1, 2022.

II. FISCAL ANALYSIS & ECONOMIC IMPACT STATEMENT

A. FISCAL IMPACT ON STATE GOVERNMENT:

1. Revenues:

None.

2. Expenditures:

The bill provides a \$100 million appropriation in recurring funds from the General Revenue Fund to DACS for the 2022-2023 fiscal year. The bill also appropriates \$149,832 in recurring funds and

\$9,984 in nonrecurring funds from the General Revenue Fund to DACS for the 2022-2023 fiscal year. The bill authorizes two full-time equivalent positions with an associated salary rate of 80,540 for the purpose of implementing the bill.

The bill may have an insignificant negative fiscal impact on DEP that can be absorbed within existing resources from assisting DACS with determining eligibility and with establishing requirements to ensure long-term and efficient operation and maintenance of WTE facilities.

The bill may have an insignificant negative fiscal impact on PSC that can be absorbed within existing resources from providing assistance to DACS for financial assistance grants.

B. FISCAL IMPACT ON LOCAL GOVERNMENTS:

1. Revenues:

The bill may result in a positive fiscal impact to publicly-owned MSWE facilities that qualify for the program by providing grants to offset capacity payments and to assist with certain planning and design expenses.

2. Expenditures:

None.

C. DIRECT ECONOMIC IMPACT ON PRIVATE SECTOR:

The bill may result in a positive fiscal impact to government affiliate-owned MSWE facilities that qualify for the program by providing grants to offset capacity payments and to assist with certain planning and design expenses.

D. FISCAL COMMENTS:

None.

III. COMMENTS

A. CONSTITUTIONAL ISSUES:

1. Applicability of Municipality/County Mandates Provision:

Not applicable. This bill does not appear to require counties or municipalities to spend funds or take action requiring the expenditure of funds; reduce the authority that counties or municipalities have to raise revenues in the aggregate; or reduce the percentage of state tax shared with counties or municipalities.

2. Other:

None.

B. RULE-MAKING AUTHORITY:

The bill authorizes DACS, in consultation with the PSC and DEP, to adopt rules to implement and administer the program.

C. DRAFTING ISSUES OR OTHER COMMENTS:

None.

IV. AMENDMENTS/COMMITTEE SUBSTITUTE CHANGES

On February 15, 2022, the Tourism, Infrastructure & Energy Subcommittee adopted a strike-all amendment and reported the bill favorably as a committee substitute. The amendment:

- Clarifies eligibility, application requirements, and fund distribution guidelines for the financial assistance grant program.
- Appropriates recurring funds from the General Revenue Fund to the Department of Agriculture and Consumer Services (DACS) for the 2022-2023 fiscal year as follows:
 - \$100 million to fund the grant program.
 - \$149,832 to provide for the staff necessary to administer the program.
- Appropriates non-recurring funds from the General Revenue Fund to DACS for administration expenses in the amount of \$9,984.

- Provides that allocated funds which are not disbursed by the end of the fiscal year may be carried forward for up to five years.

On February 22, 2022, the Appropriations Committee adopted an amendment and reported the bill favorably as a committee substitute. The amendment provides that funds awarded under the incentive grant program may not be used to promote, establish, or convert a residential collection system that does not provide for the separate collection of residential solid waste from recovered materials as defined in s. 403.703, F.S.

This analysis is drafted to the committee substitute as approved by the Appropriations Committee.