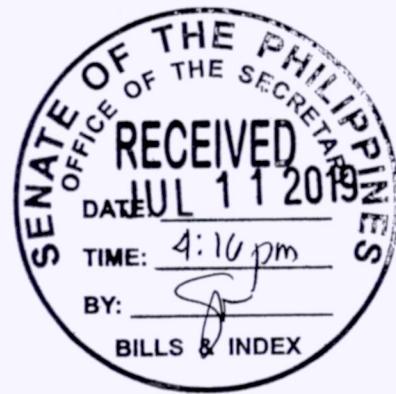


EIGHTEENTH CONGRESS OF THE
REPUBLIC OF THE PHILIPPINES)
First Regular Session)

SENATE
S. No. 401



Introduced by Senator Francis "Tol" N. Tolentino

**AN ACT
ALLOWING THE USE OF WASTE TO ENERGY TECHNOLOGY IN ELECTRICITY,
FUEL AND HEAT GENERATION, AND FOR OTHER PURPOSES**

EXPLANATORY NOTE

One of the major environmental problems of the Philippines is the improper disposal of waste. Currently, all municipal solid waste of local government units are disposed to a sanitary landfill, usually unsegregated and untreated.

According to a study conducted by the Japan International Cooperation Agency, the percentage of local government units that fully followed the sanitary landfill method, as mandated by Republic Act No. 9003 or the Ecological Solid Waste Management Act, did not reach ten percent (10%). Furthermore, around eighty percent (80%) to ninety percent (90%) of the capacity of the constructed sanitary landfills has been utilized and is projected to be at full capacity within the next five (5) years.

Concurrent with the garbage disposal problem, the Philippines is also facing a forthcoming crisis in the field of energy supply. As of now, rotational brownout is being implemented by electric suppliers in some areas of the country. During the dry season, the production of energy supply drastically drops since we rely on several hydroelectric power plants. The price of electricity is also increasing due to the shortage of supply and the increasing demand, coupled with the rising prices of petroleum products in

the world market which is the primary raw material for the operation of our fossil fuel power plants.

To address both the disposal of solid waste and shortage of energy supply, this bill proposes to fully allow the use of waste to energy technologies, in harmony with the Supreme Court ruling in the case of Metropolitan Manila Development Authority vs. Jancom Environmental Corporation, et al., where it was ruled that the Republic Act No. 8749, or otherwise known as the Clean Air Act of 1999, does not absolutely prohibit incineration as a mode of waste disposal; rather, only those burning processes which emit poisonous and toxic fumes are banned.

There have been several attempts to establish waste to energy facilities and even backed by the national government and local government units. However, because of legal impossibilities, these proposed projects never pushed through.

Republic Act No. 9513, or otherwise known as the Renewable Energy Act of 2008, already allows the use of waste to energy technology, but only in a limited sense. This bill proposes to allow the use of waste to energy technology, using any process; provided, that it is environmentally sound and operationally efficient.

In the light of the foregoing, the passage of this bill is earnestly sought.



FRANCIS "TOL" N. TOLENTINO

Senator

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*Be it enacted by the Senate and House of Representatives of the Philippines in
Congress assembled:*

1 Section 1. *Short Title.* – This Act shall be known as the "Waste to Energy Act
2 of 2019."

3 Sec. 2. *Declaration of Policy.* – It is hereby declared the policy of the State to
4 adopt a systematic and comprehensive solid waste management program which
5 ensures the protection of public health and environment, and encourage the
6 development of environmentally sustainable waste to energy facilities to address the
7 solid waste disposal and energy shortage.

8 It is also the policy of the State to allow the process of incineration in waste to
9 energy facilities provided that the burning process does not emit poisonous and toxic
10 fumes.

11 Sec. 3. *Objectives.* - The objectives of this Act are:

- 12 (a) To allow the operation of waste to energy facilities to aid in the reduction of
13 solid waste disposal and in the increase of energy production;
- 14 (b) To provide guidelines on the evaluation, establishment, and operation of waste
15 to energy facilities for the integrated management of municipal solid wastes
16 which ensure the protection of public health and environment;

- (c) To increase the efficiency of collection and transport of solid wastes;
- (d) To ensure the proper segregation, collection, transport, storage, treatment and disposal of solid waste through the formulation and adoption of the best environmental practices in ecological waste management, including incineration in a waste to energy facility;
- (e) To encourage private sector participation in solid waste management and waste to energy conversion;
- (f) To strengthen the cooperation of local government units in solid waste management and materials recovery facilities to make an efficient collection and transport of municipal solid wastes from source and until it reaches the waste to energy facilities;
- (g) To strengthen the integration of solid waste management into the academic curricula in order to promote environmental awareness and action among the citizenry and to minimize the disposal of solid wastes and expedite the segregation process;
- (h) To encourage the development and use of local technology; and
- (i) To improve, ensure and protect the health of the public by reducing the wastes that are to be thrown directly to the sanitary landfills through proper operation of the materials recovery facilities and the operation of waste to energy facilities.

Sec 3. *Definition of Terms.* - For purposes of this Act, the following terms shall mean:

- (a) Clustering is a strategy of pooling available resources of neighborhood cities, municipalities or barangays for the establishment of a common solid waste management facility or service;
- (b) Emission shall refer to any air contaminant, pollutant, gas or unwanted sound from a known source which is passed into the atmosphere;
- (c) Hazardous Wastes shall refer to by-products, side-products, process residues, spent reaction media, contaminated plant or equipment or other substances from manufacturing operations and as customer discards of manufactured products which present unreasonable risk and/or injury to health and safety and to the environment;

- 1 (d) Host LGU shall refer to the local government unit where the waste to energy
2 facility is located;
- 3 (e) Materials Recovery Facility (MRF) shall include solid waste transfer station or
4 sorting station, drop off center, a composting facility and a recycling facility;
- 5 (f) Municipal Solid Waste shall refer to wastes produced from activities which
6 include a combination of domestic wastes from residential, commercial,
7 institutional and industrial wastes;
- 8 (g) Recyclable Materials shall refer to any waste material that can be converted
9 into suitable beneficial use or for other purposes;
- 10 (h) Sanitary Landfill shall refer to waste disposal site designed, constructed,
11 operated and maintained in a manner that exerts engineering control over
12 significant potential environmental impacts arising from the development and
13 operation of the facility;
- 14 (i) Segregation shall refer to solid waste management practice of separating
15 different materials found in solid waste in order to promote recycling and re-
16 use of resources and to reduce the volume of waste for collection and disposal;
- 17 (j) Waste to Energy shall refer to the process of converting wastes with various
18 technologies, usually the conversion of non-recyclable waste materials into
19 usable heat, electricity, or fuel through a variety of processes; and
- 20 (k) Waste to Energy Facility shall refer to the facility where the waste to energy
21 operations are conducted.

22 Sec. 4. *Waste to Energy Technology, allowed.* – The use of waste to energy
23 technologies which converts non-recyclable solid waste materials, through any mode
24 or process, including incineration, into usable heat, electricity, or fuel shall be allowed.

25 Sec. 5. *Guidelines.* – The Department of Science and Technology, in
26 coordination with the Department of Energy and the Department of Environment and
27 Natural Resources shall provide guidelines regarding the operation of waste to energy
28 technology which must include:

- 29 (1) Compliance of environmental permits, clearances and other legal
30 requirements from concerned agencies prior to construction, set-up and
31 operation of a waste to energy facility;

- 1 (2) Solid waste management plan of the host Local Government Unit consistent
2 with Republic Act No. 9003;
- 3 (3) Clustering of Local Government Units and/or forming partnerships with the
4 private sector in the establishment, construction and operation of waste to
5 energy facility;
- 6 (4) Compliance with the Euro Emission Standards;
- 7 (5) Operational guidelines for waste to energy facility, such as, but not limited
8 to:
- 9 (a) kind of waste that may be accepted by the facility for processing;
- 10 (b) implementation of MRFs, Residual Containment Areas, Sanitary landfills
11 and other disposal facilities;
- 12 (c) quality and sustainability of wastes; and
- 13 (d) documentation indicating the quantity in weight, source and type of
14 source-segregated wastes to be processed including the date and time
15 received.
- 16 (6) Guidelines for appropriate storage facilities for segregated wastes, materials
17 and by-product from the operation, providing proper measures to address
18 risks of explosion, combustion, corrosion, contamination, infection, and odor
19 emission;
- 20 (7) Manual of operation and quality assurance and control and standards for
21 quality control/assurance system;
- 22 (8) A detailed emergency response plan to ensure effective and rapid
23 containment and clean-up in the event of an emergency incident;
- 24 (9) Personal protective equipment and medical care in compliance with existing
25 laws, rules, and regulations to all personnel of the facility directly handling
26 or exposed to waste materials, in-process materials and finished products;
- 27 (10) Pollution control and abatement facilities to ensure that all emissions and
28 effluents comply with environmental standards;
- 29 (11) Requirements for treatment, storage and disposal facilities for any
30 hazardous waste resulting from the operations of the waste to energy
31 facility;

(12) Allowable locations for waste to energy facilities, which must be far from urban areas;

(13) And such other guidelines as may be necessary for the furtherance of the purpose and objectives of this Act.

Sec. 6. Environmental Monitoring. – The Environmental Management Bureau of the Department of Environment and Natural Resources shall regularly and periodically monitor or inspect the environmental compliance of the waste to energy facility, including its operations, and shall promulgate guidelines on the periodic reports and presentations required to be submitted to the Bureau.

The Bureau shall have the power to issue a cease and desist order or temporary closure orders for non-compliant facilities.

Sec. 7. Acceptable Waste Materials. – the Department of Environment and Natural Resources shall provide a list of acceptable waste that may be processed in the waste to energy facility. It shall ensure that only materials that pass the international environmental standards with high calorific values are allowed to be processed in waste to energy facilities.

The following shall not be acceptable materials:

1. Recyclable wastes;
 2. Health care wastes;
 3. Explosives;
 4. Batteries;
 5. Radioactive wastes;
 6. Electronic wastes;
 7. Cyanide wastes;
 8. Unsegregated municipal solid wastes; and
 9. Other wastes that are not safe or efficient for processing in the waste to energy facility, as determined by the DENR.

Sec. 8. Prohibition on Importation of Wastes; exception. – Importation of wastes that are to be used by waste to energy facilities shall not be allowed, unless, MB certifies that the supply of acceptable wastes in the Philippines are insufficient to meet the demands for the efficient production of the waste to energy facilities, and

1 unless the other requirements on importation of waste under Republic Act No. 6969
2 and the Basel Convention are also complied with.

3 Sec. 9. *Clustering*. – Neighboring Local Government Units are mandated to
4 establish a common solid waste management and materials recovery facility, in
5 accordance with Section 33 of the Local Government Code, and shall jointly develop
6 an efficient collection and transport operation of municipal solid wastes.

7 Local Government Units are authorized to sell segregated municipal solid
8 wastes to privately-owned or operated waste to energy facilities.

9 Sec. 10. *Tax Incentives*. – Operators of waste to energy facilities shall enjoy a
10 five (5) year tax holiday from the start of its commercial operations, tax and duty free
11 importation of raw materials, capital equipment, machineries, and spare parts subject
12 to the conditions under Section 8 of this Act, and VAT zero-rating of all local purchases
13 of raw materials.

14 Sec. 11. *Implementing Rules and Regulations*. – The Department of Science
15 and Technology, in coordination with the Department of Energy and the Department
16 of Environment and Natural Resources shall collectively craft, and issue, within thirty
17 (30) days from the date of the effectivity of this Act, the Implementing Rules and
18 Regulations for the effective implementation of this Act.

19 Sec. 12. *Fines and Penalties*. – Any person who violates any of the provisions
20 of this Act, including the rules and regulations thereof, shall be imposed with a penalty
21 of imprisonment of six (6) months and one day to six (6) years or a fine of at least
22 one hundred thousand pesos (Php100,000) but not more than one million pesos
23 (Php1,000,000), or both.

24 If the offender is a juridical person, the president, manager, directors, trustees,
25 or the officials directly in charge of the operations shall suffer the penalty provided.
26 Permits and licenses issued to such juridical entities shall automatically be revoked
27 and canceled.

28 If the offender is a public official, the penalties imposed by this Act shall be in
29 addition to and without prejudice to Republic Act No. 3019 or the Anti-Graft and
30 Corrupt Practices Act.

1 Sec. 13. *Separability Clause.* - If any provision of this Act shall be held
2 unconstitutional or invalid, the other provisions not otherwise affected shall remain in
3 full force and effect.

4 Sec. 14. *Repealing Clause.* - Provisions of Republic Act No. 8749, Republic Act
5 No. 9003, Republic Act No. 6969, Republic Act No. 9513 and all other laws, decrees,
6 executive orders, proclamations and other executive issuances which are inconsistent
7 with or contrary to the provisions of this Act are hereby amended accordingly.

8 Sec. 15. *Effectivity Clause.* - This Act shall take effect fifteen (15) days following
9 its complete publication in the Official Gazette or in two (2) national newspapers of
10 general circulation.

Approved,