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SENATE
S.B. No. 151

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Introduced by Senator WIN GATCHALIAN

**AN ACT
ESTABLISHING A NATIONAL ENERGY POLICY AND REGULATORY
FRAMEWORK FOR FACILITIES UTILIZING WASTE-TO-ENERGY
TECHNOLOGIES**

EXPLANATORY NOTE

Using the 2015 waste generation data of the National Solid Waste Management Commission (NSWC), it is projected that from 14.66 million metric tons of waste produced in 2014, the country will produce 20.51 million metric tons of waste by 2030, a 39.90% from 2014. Data from Department of Environment and Natural Resources (DENR) also show that as of 2018, there were 404 illegal open dumpsites while there were only 164 sanitary landfills, a ratio of 2.5 is to 1.

Republic Act No. 9513, otherwise known as the Renewable Energy Act of 2008 (RE Act), mandates the Department of Energy (DOE) to encourage the adoption of waste-to-energy (WTE) facilities and considers biodegradable organic fractions of industrial and municipal wastes as part of biomass resources.¹ More than a decade since its passage, there are only 12 WTE plants in the country utilizing municipal solid waste. This only produces 51.41 megawatts (MW) of installed capacity and 700 metric tons of fuel. However, there is an additional potential of 304.34 MW that can be generated from 5,554, 205 metric tons of biodegradable and residual waste per year.²

¹ Sec. 4(b) and Sec. 30 of Republic Act No. 9513

² DOE (2020)

To address the garbage crisis in the country, this measure provides an additional solution on top of the 4Rs – *reduce, reuse, recycle and recover* – while at the same increasing the energy production in the country through WTE. This measure seeks to provide a framework for the entire value chain of WTE facilities, and in turn ensure the uninterrupted supply of waste by (1) mandating a WTE strategy in the national, provincial, and local solid waste management plans; (2) authorizing local government units to enter into cooperative undertakings, joint ventures, and other similar modalities in choosing a common WTE facility provider (3) requiring standards, criteria, guidelines, and formula in computing for a fair, equitable, and reasonable tipping charge for WTE facilities taking into consideration the cost of construction, operation and maintenance of the facility and the potential revenue from the sale of energy output such as electric power and biofuels; and 4) ensuring the protection of the public’s health and the environment by the strict implementation of health and environmental standards applicable to WTE facilities operation.

Given the foregoing, the immediate passage of this measure is sought.



WIN GATCHALIAN

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**AN ACT
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FRAMEWORK FOR FACILITIES UTILIZING WASTE-TO-ENERGY
TECHNOLOGIES**

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

1 SECTION 1. *Short Title.* – This Act shall be referred to as the “Waste-to-Energy
2 Act”.

3
4 Sec. 2. *Declaration of Policy.* – It is hereby declared the policy of the State to:

- 5 (a) Ensure protection of the public’s health and the environment through a
6 systematic and comprehensive ecological solid waste management program;
7 (b) Strengthen its commitment to solid waste avoidance and volume reduction
8 by supplementing the latter with other solid waste management treatment
9 technologies to include waste-to-energy;
10 (c) Encourage the development and utilization of environmentally sustainable
11 new and alternative technologies in resource recovery, resource conservation,
12 processing, treatment, and disposal of solid waste, such as waste-to-energy
13 facilities;
14 (d) Support the utilization of waste-to-energy facilities in order to attain
15 sustainable energy and energy security;

- 1 (e) Strengthen the integration of solid waste management, waste-to-energy
2 promotion, and environmental protection towards healthful cities amidst
3 economic growth and development; and
- 4 (f) Promote collaboration, cooperation, and participation of various sectors in
5 coordinated approaches to solid waste management and waste treatment
6 technology towards national development and jobs creation.

7

8 Sec. 3. *Scope and Application.* – This Act shall apply to all local government
9 units and waste-to-energy facilities.

10

11 Sec. 4. *Definition of Terms.* – For purposes of this Act, the following terms
12 shall be defined as stated below:

- 13 (a) *Agricultural waste* refers to waste generated from planting or harvesting of
14 crops, trimming or pruning of plants, and wastes or run-off materials from
15 farms or fields;
- 16 (b) *Biomedical waste or hazardous healthcare waste* refers to waste from
17 healthcare facilities that may pose a variety of environmental and health risks.
18 It can be further classified into sharps waste, infectious waste, pathological
19 and anatomical waste, pharmaceutical waste, genotoxic waste, chemical
20 waste, radioactive waste, and pressurized containers as defined by the
21 Department of Health (DOH);
- 22 (c) *City or Municipal Solid Waste Management Board* refers to the entity
23 established by each city or municipality pursuant to Section 12 of Republic
24 Act No. 9003, otherwise known as the Ecological Solid Waste Management
25 Act of 2000;
- 26 (d) *Chemical and industrial waste* refers to discarded solid, liquid, or gaseous
27 chemicals from laboratories, industrial establishments, or other sources such
28 as diagnostic and experimental work, environmental work, cleaning,
29 housekeeping, and disinfecting procedures;
- 30 (e) *Clustering* is a strategy of pooling available resources of local government
31 units (LGUs) for the establishment of a common solid waste management
32 treatment facility or service;

1 Statement System, Republic Act No. 6969 otherwise known as the Toxic
2 Substances and Hazardous and Nuclear Waste Act, Republic Act No. 7638
3 otherwise known as the Department of Energy Act of 1992 as amended,
4 Republic Act No. 8749, Republic Act No. 9003, Republic Act No. 9136
5 otherwise known as the Electric Power Industry Reform Act of 2001,
6 Republic Act No. 9275 otherwise known as the Philippine Clean Water Act
7 of 2004, Republic Act No. 9367 otherwise known as the Biofuels Act of
8 2006, Republic Act No. 9513 otherwise known as the Renewable Energy
9 Act of 2008, Republic Act No. 11223 otherwise known as the Universal
10 Health Care Act, and WHO Guidelines on Air Quality.

11 All waste treatment technologies in a WTE facility shall be allowed including
12 incineration: *Provided*, that these technologies shall not emit toxic and poisonous
13 fumes into the environment and shall comply with all the laws mentioned hereof and
14 other relevant laws, rules, and regulations.

15 In addition to the provisions of this Act, the segregation, collection, transfer,
16 storage, and transport of solid waste as WTE feedstock for a WTE facility, and the
17 waste treatment process of the WTE facility shall be governed by Republic Act No.
18 9003 and Republic Act No. 8749, while the energy production aspect of the WTE
19 facility shall be governed by Republic Act No. 7638, Republic Act No. 9136, Republic
20 Act No. 9367, Republic Act No. 9513, and other relevant laws, rules, and regulations.

21
22 *Sec. 6. The National Solid Waste Management Commission.* – The Secretary of
23 the Department of Energy shall serve in *ex officio* capacity as member of the National
24 Solid Waste Management Commission (NSWMC), which shall now have fifteen (15)
25 members from the government sector. In addition to its powers and functions under
26 Republic Act No. 9003, the NSWMC shall:

- 27 (a) Include a WTE strategy in the National Solid Waste Management Framework;
28 (b) Act as the lead agency in ensuring streamlined standards, criteria, and
29 guidelines for WTE facilities to avoid inconsistent and conflicting issuances;
30 (c) Regularly determine, review, and publish the following:
31 (i) Standards, criteria, and guidelines for:

- 1 1. Characterization and composition of solid waste utilized as WTE
- 2 feedstock for WTE facilities to ensure emissions are compliant
- 3 with Republic Act No. 8749 and other relevant laws, rules, and
- 4 regulations,
- 5 2. Transport, storage, and pre-processing of WTE feedstock,
- 6 3. Pre-operation, siting, design, operation, and maintenance of
- 7 WTE facilities,
- 8 4. Quality control and operational control of WTE facilities,
- 9 5. Management of residue from WTE facilities, if any;
- 10 6. Pollution abatement, emissions monitoring, environmental
- 11 monitoring, and public health and safety monitoring in relation
- 12 to WTE facilities,
- 13 7. Decommissioning, closure, and abandonment of WTE facilities,
- 14 and
- 15 8. Other guidelines pursuant to relevant laws, rules, and
- 16 regulations, and
- 17 (ii) Minimum standards, criteria, and guidelines, in determining a fair,
- 18 equitable, and reasonable processing fee for WTE facilities taking into
- 19 consideration, among others, the cost of construction, operation, and
- 20 maintenance of the facility as well as the potential revenue from the
- 21 sale of energy output, in consultation with relevant government
- 22 agencies, experts, and stakeholders;
- 23 (d) Consolidate and make available to the public, through its website, the
- 24 following:
- 25 (i) Current and potential uses of WTE facilities in relation to solid waste
- 26 management;
- 27 (ii) Inventory of existing WTE facilities;
- 28 (iii) General feedstock characterization;
- 29 (iv) Status and projection of feedstock generation;
- 30 (v) Specific locations of potential feedstock and WTE facilities; and
- 31 (vi) Other relevant information;

- 1 (e) Provide policy guidelines to assist LGUs in the development of WTE facilities to
2 include the determination of the potential of WTE facilities in their respective
3 localities;
- 4 (f) Ensure LGUs incorporate a WTE strategy, if feasible, in their respective Local
5 Government Solid Waste Management Plans;
- 6 (g) Identify and recommend potential clustering of LGUs for a common WTE
7 facility;
- 8 (h) Coordinate with the Provincial, City, and Municipal Solid Waste Management
9 Boards especially for clustered LGUs employing a common WTE facility; and
- 10 (i) Perform all other acts that are analogous to the foregoing, which are necessary
11 and incidental to accomplish the policy objectives of this Act.

12
13 *Sec. 7. Role of the Department of Energy.* – In addition to its powers and
14 functions under Republic Act No. 7638, the Department of Energy (DOE) shall:

- 15 (a) Issue permits to WTE facilities based on the energy output, and determine the
16 standards, criteria, and requirements applicable for each kind of WTE facility
17 pursuant to Republic Act No. 7638, Republic Act No. 9136, Republic Act No.
18 9367, Republic Act No. 9513, and other relevant laws, rules, and regulations;
- 19 (b) Include a WTE strategy in the Philippine Energy Plan, taking into consideration
20 the National Solid Waste Management Framework;
- 21 (c) Regularly submit to the NSWMC and make available to the public, especially to
22 potential WTE investors, national and local information on the following:
- 23 (i) Current and potential uses of WTE facilities in relation to solid waste
24 management,
- 25 (ii) Inventory of existing WTE facilities, and
26 (iii) Other relevant information; and
- 27 (d) Perform all other acts that are analogous to the foregoing, which are necessary
28 and incidental to accomplish the policy objectives of this Act.

29
30 *Sec. 8. Role of the Department of Environment and Natural Resources.* – In
31 addition to its powers and functions under Republic Act No. 9003 and Republic Act
32 No. 8749, the DENR shall:

- 1 (a) Include a WTE strategy, if feasible, in the National Solid Waste Management
2 Status Report;
- 3 (b) Provide technical and other capacity building assistance and support to LGUs
4 based on the policy guidelines created by the NSWMC pursuant to Section 6(e)
5 of this Act;
- 6 (c) Implement and revise, when necessary, together with the DOH, existing
7 guidelines issued pursuant to Republic Act No. 9003 on waste transport, pre-
8 operation, waste acceptance, waste storage, pre-processing of waste, quality
9 control, operational control, pollution abatement, management of residue,
10 emissions monitoring, environmental monitoring, public health and safety
11 monitoring, decommissioning, closure, and abandonment, among others,
12 taking into account the NSWMC's standards, criteria, and guidelines under
13 Section 6(c) of this Act and other relevant laws, rules, and regulations, and in
14 consultation with relevant stakeholders;
- 15 (d) Ensure compliance with Section 8(c) of this Act to include continuous
16 monitoring and testing of by-products of WTE facilities;
- 17 (e) Make available to the public, through its website, the emissions, effluents and
18 other by-products of WTE facilities;
- 19 (f) Investigate, motu proprio or upon complaint, reports of non-compliance of WTE
20 facilities with the provisions of this Act and other relevant laws, rules, and
21 regulations;
- 22 (g) Exercise visitorial and enforcement powers to ensure strict compliance of WTE
23 facilities with this Act, Republic Act No. 9003, Republic Act No. 8749, and other
24 relevant laws, rules, and regulations;
- 25 (h) Recommend to the NSWMC policies to address challenges of WTE facilities from
26 a solid waste management perspective; and
- 27 (i) Perform all other acts that are analogous to the foregoing, which are necessary
28 and incidental to accomplish the policy objectives of this Act.
- 29

30 *Sec. 9. Role of the Department of Health.* – In addition to its existing powers and
31 functions, the DOH shall:

- 1 (a) Ensure all WTE facilities undergo a Health Impact Assessment, pursuant to
2 Republic Act No. 11223 and Presidential Decree No. 1586, as part of the
3 Environmental Impact Assessment System, to be jointly reviewed and approved
4 by the DOH and DENR prior to construction and operation;
- 5 (b) Implement and revise, when necessary, together with DENR, existing
6 guidelines issued pursuant to Republic Act No. 9003 on waste transport, pre-
7 operation, waste acceptance, waste storage, pre-processing of waste, quality
8 control, operational control, pollution abatement, management of residue,
9 emissions monitoring, environmental monitoring, public health and safety
10 monitoring, decommissioning, closure, and abandonment, among others,
11 taking into account the NSWMC's standards, criteria, and guidelines under
12 Section 6(c) of this Act and other relevant laws, rules, and regulations, and in
13 consultation with relevant stakeholders;
- 14 (c) Regularly conduct an analysis of the effects of WTE facilities and disposal sites
15 on public health and submit the same to the NSWMC for consolidation, and
16 DENR for proper action, if applicable;
- 17 (d) Undertake research on the public health impact of WTE facilities together with
18 government agencies, the academe, and private stakeholders;
- 19 (e) Make available to the public, through its website, studies and analyses of the
20 effects of WTE facilities and disposal sites on public health; and
- 21 (f) Perform all other acts that are analogous to the foregoing, which are necessary
22 and incidental to accomplish the policy objectives of this Act.
- 23

24 *Sec. 10. Role of Local Government Units.* – In addition to their powers, functions, and
25 responsibilities under Republic Act No. 7160 otherwise known as the Local
26 Government Code of 1991, and Republic Act No. 9003, LGUs shall:

- 27 (a) In the case of a city or municipality and if applicable, be responsible for the
28 hauling of WTE feedstock to a WTE facility;
- 29 (b) In the case of a province and if applicable, provide necessary logistical and
30 operational support for the processing of WTE feedstock in a WTE facility;
- 31 (c) Include a WTE strategy, if feasible, in their respective Local Government Solid
32 Waste Management Plans;

1 (d) Comply with the standards, criteria, and guidelines on WTE feedstock and WTE
2 facilities pursuant to Sections 6(c), 8(c), and 9(b) of this Act, if applicable; and

3 (e) Be authorized to enter into and shall comply with all obligations under the
4 following:

5 (i) Clustering arrangements with other LGUs for a common WTE facility, on
6 their own or upon recommendation of the Provincial Solid Waste
7 Management Board or the NSWMC: *Provided*, That the province shall
8 have the power to cluster component cities and municipalities based on
9 the NSWMC approved provincial and local solid waste management
10 plans and the recommendation of the NSWMC pursuant to Section 6(g)
11 of this Act,

12 (ii) Long term contracts with WTE facilities, on their own or with clustered
13 LGUs, and

14 (iii) Public private partnerships pursuant to Republic Act No. 6957 otherwise
15 known as An Act Authorizing the Financing, Construction, Operation and
16 Maintenance of Infrastructure Projects by the Private Sector, and For
17 Other Purposes as amended, cooperative undertakings under Section 33
18 of Republic Act No. 7160, and other contractual arrangements provided
19 for under existing laws, rules, regulations as well as the LGUs' respective
20 charters for the establishment of WTE facilities: *Provided*, That WTE
21 projects submitted to the Investment Coordinating Committee pursuant
22 to Republic Act No. 6957, as amended, shall be acted upon within
23 thirty(30) working days from submission: *Provided further*, That failure
24 to act within the prescribed time frame shall deem such projects
25 approved.

26 The national government shall provide support to all LGUs towards the effective
27 implementation and the achievement of the policy objectives of this Act.

28
29 *Sec. 11. Role of the Provincial Solid Waste Management Board.* – In addition to
30 its powers and functions under Republic Act No. 9003, the Provincial Solid Waste
31 Management Board shall:

- 1 (a) Integrate a WTE strategy, if feasible, in the Provincial Solid Waste Management
2 Plan taking into consideration the Local Government Solid Waste Management
3 Plans of all its component cities and municipalities;
- 4 (b) Recommend potential locations for WTE facilities in the Provincial Solid Waste
5 Management Plan;
- 6 (c) Identify and recommend, or direct pursuant to Section 10 of this Act, clustering
7 of component cities and municipalities for a common WTE facility, based on
8 the Local Government Solid Waste Management Plans of all its component
9 cities and municipalities;
- 10 (d) Provide the necessary logistical and operational support to component cities
11 and municipalities who have the potential to be clustered, have decided to be
12 clustered, or have been directed to be clustered pursuant to Section 10 of this
13 Act, for a common WTE facility;
- 14 (e) Coordinate the efforts and oversee the implementation of the clustering of
15 component cities and municipalities for a common WTE facility; and
- 16 (f) Coordinate with other Provincial, City, and Municipal Solid Waste Management
17 Boards in identifying possible inter- and intra- province clustering for a common
18 WTE facility.

19

20 *Sec. 12. Role of the City or Municipal Solid Waste Management Board.* – In
21 addition to its powers and functions under Republic Act No. 9003, the City or Municipal
22 Solid Waste Management Board shall integrate a WTE strategy, if feasible, in its Local
23 Government Solid Waste Management Plan, and shall submit a copy thereof to the
24 Provincial Solid Waste Management Board.

25

26 *Sec. 13. Permits and Licenses.* – The procedure for the issuance of permits and
27 licenses for all kinds of WTE facilities shall be governed by Republic Act No. 11234,
28 otherwise known as the Energy Virtual One-Stop Shop Act.

29

30 *Sec. 14. Prohibited Acts.* – The following acts are prohibited:

- 31 (a) For LGUs:

1 (i) Failure to include, if feasible, and implement, if applicable, the WTE
2 strategy in their respective Local Government Solid Waste Management
3 Plans, and

4 (ii) Failure to perform the responsibilities in Section 10 on the Role of Local
5 Government Units, Section 11 on the Role of the Provincial Solid Waste
6 Management Board, and Section 12 on the Role of the City or Municipal
7 Solid Waste Management Board;

8 (b) For government agencies, failure to perform the powers and functions
9 indicated under Section 6 on the National Solid Waste Management
10 Commission, Section 7 on the Role of the Department of Energy, Section 8 on
11 the Role of the Department of Environment and Natural Resources, and Section
12 9 on the Role of the Department of Health; and

13 (c) For WTE facilities:

14 (i) Failure to comply with the responsibilities in Section 5 on Waste-to-
15 Energy and Waste-to-Energy Facility, and

16 (ii) Use of imported municipal solid waste as WTE feedstock for a WTE
17 facility.

18
19 Sec. 15. *Penalties.* – Without prejudice to civil and criminal liability, the
20 following persons found to have violated the Sections mentioned below shall be meted
21 with the following penalties:

22 (a) Officials of LGUs and government agencies who violate Section 14(a):

23 (i) First offense: six (6) months suspension,

24 (ii) Second offense: Dismissal from service, perpetual disqualification from
25 holding public office, and forfeiture of retirement benefits;

26 (b) Officials of LGUs and government agencies who violate Section 14(b) shall be
27 suffer dismissal from service, perpetual disqualification from holding public
28 office, forfeiture of retirement benefits, and imprisonment for one (1) to six
29 (6) years with a fine of not less than Five hundred thousand pesos
30 (P500,000.00) but not more than Two million pesos (P2,000,000.00);

31 (c) Any person who violates Section 14(c)(i):

1 (i) First offense: Fine of One million pesos (P1,000,000.00) and an amount
2 not less than ten percent (10%) but not more than fifteen percent
3 (15%) of the net annual income during the previous year,

4 (ii) Second offense: The same penalties as with the first offense including
5 an additional penalty of imprisonment of a minimum period of one (1)
6 year but not to exceed three (3) years,

7 (iii) Third offense: The same penalties as with the second offense and
8 permanent revocation of the license of the WTE facility;

9 (d) Any person who violates Section 14(c)(ii) shall pay a fine of One million pesos
10 (P1,000,000.00) and an amount not less than ten percent (10%) but not more
11 than fifteen percent (15%) of the net annual income during the previous year,
12 and shall suffer imprisonment of a minimum period of one (1) year but not to
13 exceed three (3) years and permanent revocation of the license of the WTE
14 facility. The same person shall repatriate the imported municipal solid waste
15 to its country of origin.

16 For Section 14, if the violation is committed by a corporation, partnership, or
17 other juridical entity duly recognized in accordance with the law, the chief executive
18 officer, president, general manager, managing partner, or such other officer-in-charge
19 shall be liable for the commission of the offense penalized under this Act.

20
21 *Sec. 16. Incentives.* – WTE facilities, depending on their output, shall be entitled
22 to avail of the incentives under Republic Act No. 9367 otherwise known as the Biofuels
23 Act of 2006 and Republic Act No. 9513 otherwise known as the Renewable Energy Act
24 of 2008.

25
26 *Sec. 17. Establishment of Dedicated Offices.* – The DOE, DENR, DOH and
27 NSWMC shall establish dedicated offices for the effective implementation of this Act.
28 The organizational structure and staffing complement shall be determined by the
29 Secretaries of DENR, DOE, and DOH, in consultation with the Department of Budget
30 and Management, and in accordance with existing civil service rules and regulations.
31 The budgetary requirements necessary for the establishment of the dedicated offices
32 shall be taken from the current appropriations of DOE, DENR, DOH and NSWMC.

1 Thereafter, the funding for the dedicated offices shall be included in the annual
2 General Appropriations Act.

3
4 Sec. 18. *Appropriations.* – The amount of Fifteen million pesos
5 (P15,000,000.00) for DOE, Three hundred million pesos (P300,000,000.00) for DENR,
6 Forty five million pesos (P45,000,000.00) for DOH, and Twenty seven million
7 (P27,000,000.00) for NSWMC for the initial implementation of this Act shall be charged
8 against the current year’s appropriations of the DOE, DENR, DOH, and NSWMC
9 respectively. Thereafter, such amounts necessary for the sustainable implementation
10 of this Act shall be included in the Annual General Appropriations Act.

11
12 Sec. 19. *Congressional Oversight.* – The Joint Congressional Energy
13 Commission (JCEC), created under Republic Act No. 9136 and renamed under Republic
14 Act No. 11285, shall exercise oversight powers over the implementation of this Act.
15 The Chairpersons of the Committee on Environment and Natural Resources of the
16 Senate and the House of Representatives shall be automatic members of the JCEC.

17
18 Sec. 20. *Implementing Rules and Regulations.* – The DOE together with the
19 DENR, in consultation with DOH, NSWMC, Department of Interior and Local
20 Government, and public and private stakeholders, shall issue the implementing rules
21 and regulations of this Act within ninety (90) calendar days upon its effectivity.

22
23 Sec. 21. *Amendatory Clause.* – All laws, decrees, orders, rules, regulations,
24 and other issuances inconsistent with the provisions of this Act are hereby deemed
25 amended and modified accordingly.

26
27 Sec. 22. *Separability Clause.* – If any portion or provision of this Act is declared
28 unconstitutional, the remainder of this Act or any provisions not affected thereby shall
29 remain in force and effect.

1 *Sec. 23. Repealing Clause.* – Any law, presidential decree or issuance, executive
2 order, letter of instruction, rule or regulation inconsistent with the provisions of this
3 Act is hereby repealed or modified accordingly.

4

5 *Sec. 24. Effectivity Clause.* – This Act shall take effect fifteen (15) days following
6 its complete publication in the Official Gazette or a newspaper of general circulation.

Approved,