

HOUSE No. 829

The Commonwealth of Massachusetts

PRESENTED BY:

Paul W. Mark

To the Honorable Senate and House of Representatives of the Commonwealth of Massachusetts in General Court assembled:

The undersigned legislators and/or citizens respectfully petition for the adoption of the accompanying bill:

An Act to promote healthy communities and the environment.

PETITION OF:

| NAME: | DISTRICT/ADDRESS: |
|---------------------------|-----------------------|
| <i>Paul W. Mark</i> | <i>2nd Berkshire</i> |
| <i>Michelle M. DuBois</i> | <i>10th Plymouth</i> |
| <i>Russell E. Holmes</i> | <i>6th Suffolk</i> |
| <i>Brian W. Murray</i> | <i>10th Worcester</i> |
| <i>José F. Tosado</i> | <i>9th Hampden</i> |
| <i>Susannah M. Whipps</i> | <i>2nd Franklin</i> |

HOUSE No. 829

By Mr. Mark of Peru, a petition (accompanied by bill, House, No. 829) of Paul W. Mark and others relative to pyrolysis and gasification processes to divert non-recycled plastics away from landfills and toward conversion into alternative fuels. Environment, Natural Resources and Agriculture.

The Commonwealth of Massachusetts

**In the One Hundred and Ninety-First General Court
(2019-2020)**

An Act to promote healthy communities and the environment.

Be it enacted by the Senate and House of Representatives in General Court assembled, and by the authority of the same, as follows:

1 SECTION 1. Chapter 16 of the General Laws, as appearing in the 2012 Official Edition,
2 are hereby amended by inserting section 21A after section 21:

3 Section 21A: Innovative Technologies.

4 (a) In developing and implementing comprehensive statewide solid waste master
5 plans, the Department of Environmental Protection shall promote the development and use of
6 pyrolysis and gasification processes to divert non-recycled plastics away from landfills and
7 toward conversion into alternative fuels and other valuable final and intermediate products by
8 reducing unnecessary and inappropriate barriers to the siting and operation of facilities utilizing
9 such technologies.

10 (b) Definitions. In this section:

11 [(1) Engineered Fuel. The term “engineered fuel” means a solid fuel that is
12 manufactured from non-recycled constituents of municipal solid waste or other secondary
13 materials.]

14 (2) Gasification. The term “gasification” means a process through which post-
15 use plastics are heated and converted to synthesis gas in an oxygen-deficient atmosphere, which
16 can be converted into fuels such as ethanol or other chemical feedstocks.

17 (3) Post-use plastics. The term “post-use plastics” means plastics that derive
18 from domestic, commercial, municipal, or other sources of activities, plastics that are recycled in
19 commercial markets, and/or other plastics that might otherwise become a waste, where such
20 plastics are processed through pyrolysis or gasification to manufacture crude oil, fuels, and/or
21 other valuable final or intermediate products. Post-use plastics may contain incidental
22 contaminants (e.g., paper labels on plastic bottles, metal rings on plastic bottle caps, etc.).

23 (4) Pyrolysis. The term “pyrolysis” means a process through which post-use
24 plastics are heated in the absence of oxygen until melted and thermally decomposed, and are then
25 cooled, condensed, and converted into crude oil and/or refined into fuels, feedstocks (such as
26 diesel and naphtha), blendstocks, chemicals, waxes, lubricants and/or other raw materials.

27 (c) Study. With respect to post-use plastics that are often deposited in landfills,
28 the Department of Environmental Protection shall conduct a study to determine the manner in
29 which the Commonwealth and the Department of Environmental Protection can promote and
30 make progress toward a cost-effective system (including with respect to environmental issues)
31 through which pyrolysis, gasification, and other innovative technologies such as engineered fuels
32 are used to convert post-use plastics [, alone or in combination with other municipal solid waste

33 or secondary materials,] into materials that can be used to generate electric energy or fuels or as
34 chemical feedstocks.

35 (d) Completion of Study. Not later than 2 years after the date of enactment of
36 this Act, the Department of Environmental Protection shall complete the study described in
37 subsection (c) and submit to the appropriate committees of the General Court reports providing
38 findings and recommendations developed through the study.

39 SECTION 2. Section 2 of chapter 21H of the General Laws, as appearing in the
40 2012 Official Edition, is hereby amended by striking the definition of “solid waste” and inserting
41 the following definition:

42 “Solid waste” or “waste”, garbage, refuse, trash, rubbish, sludge, residue or by-
43 products of processing or treatment of discarded material, and any other solid, semi-solid or
44 liquid discarded material resulting from domestic, commercial, mining, industrial, agricultural,
45 municipal, or other sources of activities, but shall not include solid or dissolved material in
46 domestic sewage or post-use plastics that would otherwise become a solid waste provided the
47 post-use plastics are processed through pyrolysis or gasification to manufacture fuels and/or
48 other valuable final or intermediate products.

49 SECTION 3: Said section 2 of chapter 21H, as so appearing, is hereby amended
50 by inserting the following definitions:

51 “Gasification”, a process through which post-use plastics and non-recycled
52 materials is heated and converted to synthesis gas in an oxygen-deficient atmosphere, which can
53 be converted into fuels such as ethanol or other chemical feedstocks.

54 “Gasification facility,” a facility that collects, separates, stores and/or converts
55 post-use plastics and other materials into fuels and/or other valuable final or intermediate
56 products using a gasification process.

57 “Post-use plastics”, plastics that derive from domestic, commercial, municipal, or
58 other sources of activities, plastics that are recycled in commercial markets, and/or other plastics
59 that might otherwise become a waste, where such plastics are processed through pyrolysis or
60 gasification to manufacture crude oil, fuels, and/or other valuable final or intermediate products.
61 Post-use plastics may contain incidental contaminants (e.g., paper labels on plastic bottles, metal
62 rings on plastic bottle caps, etc.).

63 “Pyrolysis”, a process through which post-use plastics are heated in the absence
64 of oxygen until melted and thermally decomposed, and are then cooled, condensed and
65 converted into crude oil and/or refined into fuels, feedstocks (such as diesel and naphtha),
66 blendstocks, chemicals, waxes, lubricants and/or other raw materials.

67 “Pyrolysis facility”, a facility that collects, separates, stores and/or converts post-
68 use plastics into fuels and/or other valuable final or intermediate products using a pyrolysis
69 process. Pyrolysis facilities shall not be considered “municipal waste combustors” or “municipal
70 waste combustion units”.