Comments on Waste Chapter 16

W3. Extended Producer Responsibility/Product Stewardship

Enact legislation

- Develop policies to support a packaging reduction program that incentivizes industry innovation in packaging reduction as opposed to industry self-regulation. Authorize the establishment of new Producer Responsibility Organizations that are accountable to the Legislature and the public. Adopt strong legislation and regulations to provide the necessary oversight and accountability for this program. Adequate fees are required to operate and enforce the EPR program.
- Develop design standards to increase recycled content, recyclability, and reuse. Municipal taxpayers should no longer bear the burden of the costs generated by the producers and the fees should serve to fund the costs of the recycling and reuse infrastructure.
- Define recycling in a way that does not allow for the burning of plastics including chemical or advanced recycling, waste-to-energy, gasification, or pyrolysis.
- Incentivize a circular system that relies on "disposed materials" as the feedstock for production.
- Phase out of known toxic chemicals in packaging such as PFAS chemicals, phthalates. mercury, arsenic, formaldehyde, cadmium, and styrene. Reducing the toxic content of recyclables and reusables is necessary for the development of a circular economy.

Research end-of-life

- Modernize New York's successful beverage deposit law, a/k/a "bottle bill", by expanding required deposits on non-carbonated beverages, wine and liquor bottles. Participation should be incentivized by requiring a substantial increase in the deposit. Examine the feasibility and impacts of implementing requirements that a percentage of the beverage containers be sold in refillable/returnable containers.
- At the inception of the clean energy systems economy, it is the appropriate opportunity to address the EPR issues associated with solar panels, heat pumps, appliances, etc. and take the opportunity to adopt best practices prior to the obsolescence of the existing panels.
- Examine the impacts of renewable feedstock standards on the plastics industry (e.g. require the producers to comply with a series of annually increasing "minimum-renewable feedstock" levels and require that they purchase rights if they wish to exceed these limits. This would have to be accompanied by limitations or penalties on the import of plastic resins, etc. in order to ensure that production doesn't simply shift to other areas.

W5: Refrigerant Diversion

• The title of this recommendation is too vague. There must be distinctions made between Policies, Regulation and Programs. These all must be in alignment to achieve the desired outcome. Unless there is a Program that incentivizes contractors to recover refrigerants, the Policies and Regulations alone will not be sufficient.

End-of-life

• In addition to end-of-life emissions, significant fugitive emissions occur due to refrigerant leaks or releases during installation or the operational life of the systems – especially split AC or split heat pump systems should be controlled.

Reporting

- In addition to reporting, a rewards program should be established to reward mechanical contractors for fully executing the timely and costly refrigerant recovery process.
 Enforcing recovery regulations could be best supported through a deposit scheme for the sale of refigerant, linking the deposit for the refrigerant to the social cost of carbon. This could easily translate into \$25-50 per pound of R-410a, which would be a strong motivation, especially if the payments were passed through to the installers in the field.
- The EPA and NYSDEC are still focused mostly on refrigerant charges larger than 50 lbs. Millions of residential scale systems are in the 4 to 20 lb range – so not really even regulated beyond a very loose honor system. A deposit system as described above would provide financial incentive to recover even these small volumes of refrigerant.

W9: Biogas Use

We strongly support the Panel's recommendations that where biogas is generated, it should be used on site to avoid leakage when piping or transporting the captured gas to other sites for use.

Strategic use of biogas

- Biogas should be used to generate electricity for onsite uses such as heating and cooling of buildings and lighting with any excess sold into the utility grid.
- Colocation of biogas generation with industrial facilities that utilize processes that have no alternative to the use of gas, or that produce green hydrogen.
- More organic materials need to be collected and diverted from landfills and fed directly into biodigesters to increase production of biogas, which may or may not be feasible to meet current demand.
- Many of the generating facilities may not produce sufficient gas or be located in inconvenient locations to produce commercially viable quantities of biogas. If no onsite use is identified, the collected gasses should be flared or better yet treated in a combustor (a closed unit that mixes gas and air for more complete combustion). Flaring still allows some fugitive emissions when not providing for full combustion. Utilizing such equipment will limit unwelcome light pollution and insufficient combustion due to loss of ignition.

Research

 Biogas may be generated by a variety of processes. Due to the only recent interest in reducing greenhouse gas emissions, biogas concerns have received little study. We support added research prioritized to those generating facilities that may have the most substantial impact on overall greenhouse gas emissions.

- We agree that "DEC should complete a comprehensive landfill gas and WRRF emissions research study. The study should evaluate emissions monitoring techniques, quantify fugitive emissions, and evaluate the most appropriate uses for the gas during the transition to statewide electrification."
- More specifically comprehensive landfill and water resource recovery facilities studies should be undertaken; identify the most effective monitoring technologies, quantify fugitive emissions, and evaluate the most appropriate use or treatment methods.