# Landfills Subgroup

- > Promote a more circular economy to reduce methane and carbon dioxide by more effectively recovering materials for their next highest and best use.
  - Financial assistance to develop recycling markets.
  - Legislation to require the use of recyclables (compost, etc.) by State and local entities and those contracting with the government.
  - Financial assistance to research and increase the use of organic products (compost, digestate, etc.) in agriculture and other markets.
  - Financial assistance to research and increase the use of deconstruction debris and recovered aggregate for a variety of applications
  - Encourage public-private partnership through joint funding applications and scoring that value low-emission solid waste infrastructure investments.
  - Encourage co-location of solid waste infrastructure investments and operation by simplifying operating permit modification process.
- > Building a distributed energy model that uses local waste and associated emissions/energy recovery to enable communities to be more climate resilient
  - Market expansion for energy generated from local waste and associated emissions
  - Support microgrids

# Landfills Subgroup

- > Identify and reduce fugitive emissions of methane from landfills by increasing monitoring and reducing leaks.
  - Incorporate improved monitoring technologies (e.g. drones) into facility operations and existing monitoring programs
  - Implement best practices for further emissions reduction: high-quality organic covers for oxidation, specialty LFG collectors for difficult to access areas, dewatering to increase collection
  - Solid waste regulation changes to require installation of LFG collection earlier after waste placement; Expansion of monitoring requirements for fugitive emissions beyond NSPS
  - Incentivize increased methane collection through funding / increased value of energy production from methane
- > Emissions Study (as an enabling study to above rec)
  - NYSERDA, NYSDEC to undertake comprehensive landfill gas study and in-state landfill gas research project. Perhaps a third party educational scientific peer review entity like the Environmental Research and Education Foundation (EREF) could be commissioned to do study or research.
  - Funding

## Landfills Subgroup

- Stimulate infrastructure upgrade and construction for management of organic wastes at landfills, combustors, digestors, and compost facilities through PPA payment of energy floor price not less than \$0.10/kwh or equivalent operating revenue for RNG and non-energy producing compost facilities.
  - Funding Source
  - Project Identification
  - Contractual Commitment with Recipient
  - Applicant will bear the capital cost of infrastructure improvement and receive enhanced operating revenue on completion. Project review and contract will require applicant to demonstrate how proposed infrastructure will advance GHG goals, why it is feasible, and accept operating conditions. Review Team must be knowledgeable and flexible.

### Topic: LifeCycle Assessment Strategy

- > Evaluate available waste lifecycle tools for potential use in informing waste management policy decisions in support of the CLCPA
  - NYSERDA, NYSDEC to convene a technical working group of academics with waste management and/or lifecycle experience to evaluate existing lifecycle models, propose necessary changes, and identify gaps in existing knowledge (e.g. emission factors)
  - Funding

## Local Scale Diversion & Climate Justice Subgroup

- > Reduce methane emissions from landfills by increased collection of MGP and paper recycling in low recycling communities.
  - Provide financial assistance for service providers and establish facilities for recycling collection initiative
- > Reduce methane and carbon dioxide emissions from landfills and combustors by increased ewaste and textile collection.
- > Reduce methane and carbon dioxide emissions from landfills and combustors by targeting education and outreach programs, funding waste reduction, reuse initiatives, and on campus redemption centers, etc.,
- > Reduce methane and carbon dioxide emissions from landfills and combustors by supporting replicable recycling systems (local and statewide) with shovel-ready solutions (collecting recyclables, organics collection and composting, etc.)
- > Reduce methane and carbon dioxide emissions from landfills and combustors by requiring municipalities support recycling incentive programs

## Local Scale Diversion & Climate Justice Subgroup

- > Reduce methane and carbon dioxide emissions from landfills and combustors by incorporating a (sliding scale) recycling service fee to local and statewide residential construction to support local initiatives.
- > Reduce methane and carbon dioxide emissions from landfills and combustors by instituting residential recruitment strategies for workforce and job training development
- > Reduce methane and carbon dioxide emissions from landfills by supporting robust local reuse, recycling systems with a focus on multi-family buildings, disadvantaged communities, supporting social entrepreneurs with shovel-ready solutions.
- > Reduce methane and carbon dioxide emissions from landfills and combustors by requiring and supporting coordination between local and regional entities to successfully implement local recycling laws, codes, regulations and programs

## Materials Management Subgroup

- > To reduce methane emissions from landfills, increase food donation and food scraps recycling.
  - Amend Food Donation and Food Scraps Law to include smaller food scraps generators, eliminate mileage limit for organics recycling facilities and eliminate the financial hardship exemption.
  - Phase in a ban on the disposal of food scraps and other organics in landfills and waste to energy facilities, in concert with an organics recycling mandate
  - Provide financial assistance for emergency food providers and establishment of food waste recycling facilities.
- > Reduce methane and carbon dioxide emissions from landfills and combustors by enacting broader Extended Producer Responsibility (EPR)/Product Stewardship requirements to cover plastics, paper, carpets, tires, textiles, solar panels, batteries, appliances, etc.
  - Legislation to create a framework for extended producer responsibility / product stewardship, or individual legislation targeting products with the greatest GHG impact (e.g., Packaging and Printed Paper, Carpet, Textiles, Solar Panels, Batteries, etc.)
- > Reduce methane and carbon dioxide emissions from landfills and combustors by targeting education and funding waste reduction and reuse initiatives, including local reuse centers, etc.
  - Financial support for local reuse centers and waste reduction education.

### Materials Management Subgroup

- > Reduce methane and carbon dioxide emissions from landfills and combustors by supporting a robust local reuse and recycling systems (local food scraps collection and composting, etc.).
  - Financial assistance to assist local level collection and processing such as bikes for food waste collection and neighborhood composting systems.
- > Reduce methane and carbon dioxide emissions from landfills and combustors by supporting domestic, especially New York State, markets for recyclables, renewable natural gas, compost, digestate, construction debris components, etc.
  - Financial assistance to develop recycling markets.
  - Legislation to require the use of recyclables (compost, construction aggregate, etc.) by State and local entities and those contracting with the government.
  - Financial assistance to research, develop standards, and increase the use of organic products (compost, digestate, etc.) in agriculture and other markets.
  - Legislation to require a minimum level of recycled content in certain products and packaging to support end markets
- > Reduce methane and carbon dioxide emissions from landfills and combustors by requiring a \$ per ton surcharge on waste generated in New York State that is landfilled or combusted, to support recycling and local initiatives.
  - Legislation to require a fee on each ton of waste generated that is landfilled or combusted, to support local waste reduction, reuse, and recycling infrastructure. Scale the fee to reflect the GHG impact of materials being disposed.

# Water Resource Recovery Facilities Subgroup

> Eliminate fugitive emissions of methane and nitrous oxide by reducing leaks from 1) anaerobic digesters 2) poorly operated flares and 3) conveyance systems like sewers and pump stations by using better monitoring, operation, and maintenance practices.

- Identify source of funding for monitoring and maintenance. Capital investments for mitigation
- Perform monitoring and system upgrades
- DEC Rulemaking to require monitoring and remediation (would be a new regulatory program because not criteria pollutant and digesters are not technically sources in air permits)
- > Reduce methane emissions from landfills by increasing anaerobic digestion of food waste and other organic materials (industrial process streams, Fats/Oils/Grease) at wastewater treatment plants.
  - Funding to municipalities to upgrade or build digesters to handle food waste
  - Amend Food Donation and Food Scraps Recycling Law to require greater diversion of food waste from landfills

# Water Resource Recovery Facilities Subgroup

> Reduce methane emissions from landfilling of biosolids and increase carbon sequestration in soils by drastically increasing the recycling of biosolids

- Legislation to support the diversion of biosolids from landfills
- Financial support for municipalities to upgrade biosolids treatment systems
- > Recover nutrients (phosphorus, etc.) in wastewater to reduce greenhouse gas emissions from the extraction and management of commercial fertilizers.
  - Financial assistance to treatment plants to advance nutrient removal technologies and marketing.
- > To reduce methane emissions from septic tanks, eliminate septic tanks and convert to municipal sewer system collection where municipal system are readily available.
  - Repurpose Septic Sewer Assistance Programs to include sewer hookups or utilize other funding mechanism
- > Find highest and best use of digester gas on site as alternative to flaring
  - Fund studies to identify potential uses of biogas at WRRFs
  - Maintain existing digester gas systems
  - Meet thermal demand with digester gas on site where possible