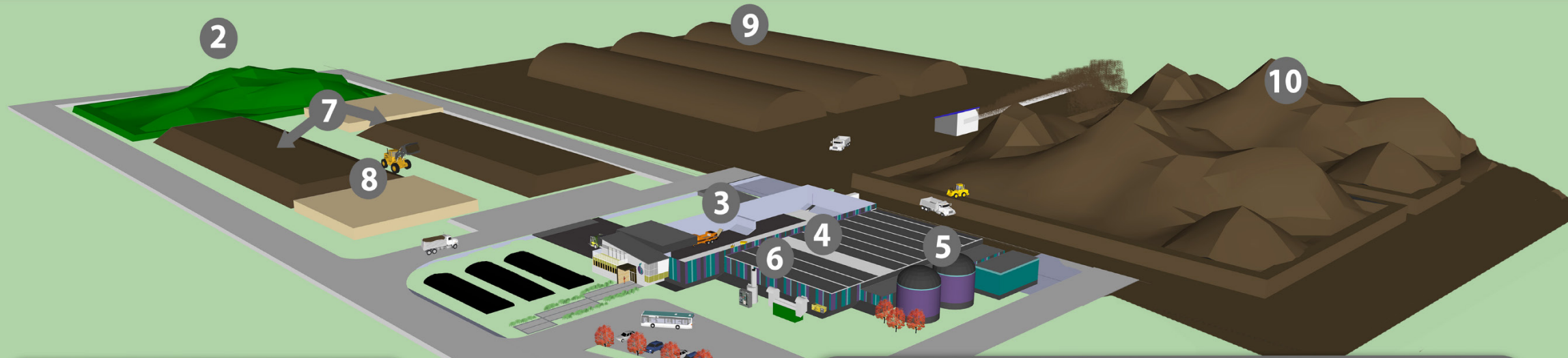


Harvest's Energy Garden and Composting Facility

Completing the Organic Loop in the Metro Vancouver Region, BC



SITE HIGHLIGHTS – Richmond, BC

- **Innovation:** Pioneering the largest commercial-scale high solids anaerobic digester in North America
- **Sustainable Design:** Advanced equipment and layout maximizes efficiency
- **Community Education:** Award-winning architects designed a Visitors' Centre. Visit virtually! harvestpower.com/energygarden

MATERIAL FLOW

- 1. Scale Office**
Trucks are weighed as they enter and exit.
- 2. Green Waste Tip Area**
Brush, leaves, and yard trimmings are tipped, mixed and loaded into compost cells.
- 3. Food Waste Receiving Hall**
High-calorie food scraps are tipped in an enclosed building, shredded, mixed, and loaded into tunnels.
- 4. Hydrolysis Tunnels**
Once a tunnel is filled the door is shut tight to create a gas-tight environment. A liquid sprinkled onto the materials biochemically degrades the carbohydrates and fats into organic acids called hydrolysate. After 2-3 weeks the digestate is removed and composted.
- 5. Methane Digesters**
The hydrolysate, stored in buffer tanks, is fed into methane digesters where naturally-occurring bacteria convert the organic compounds in the liquid into biogas.
- 6. Gas Clean-Up and Clean Energy Generation**
Biogas containing 65%-80% methane is cleaned up and processed through a combined heat-and-power (CHP) unit. Clean, local electricity is fed onto the grid and the heat is used to warm the system.
- 7. Composting**
Green waste (food scraps and yard trimmings) is composted in covered aerated static piles.
- 8. Biofilters**
Air pulled from the compost cells gets filtered.
- 9. Curing Windrows**
The compost is cured to maturity.
- 10. High Quality Soil Products**
Nutrient-rich compost and compost-based soil blends are returned to local farms, gardens and landscapes. The organic loop of energy and nutrients continues.