Attachment 3: Green Food Truck Initiatives: Industry Practices and Regulations in North America

Background

The popularity of roadside food trucks has increased tremendously over the past ten years. The ability to service customers in otherwise under-serviced areas with a wide variety of food choices has made food trucks popular with consumers, and their low barriers to enter the business and overhead costs make them attractive to avant-garde chefs and entrepreneurs.

However, the increasing popularity of food trucks has resulted in some questions being raised about their impact on the environment. Like any food business, food trucks will produce waste, generate greenhouse gases and may create noise. The research contained in this report examines what various North American municipalities are doing to reduce these impacts as well as highlight some initiatives that food trucks have independently taken on to become greener.

Approach

Administration's research, conducted in June and July of 2014, examined 43 Canadian and American municipalities that allow food trucks to operate. The examination included a review of the municipality's bylaws and permit requirements as well as a media and web scan to identify green food truck initiatives that may be followed in-practice, but not mandated.

Findings

The findings section has been divided into four major types of green initiatives for food trucks.

1. Lowering Emissions and Alternative Energy Sources
2. Managing Waste
3. Managing Noise
4. Food Sourcing and Selection.

1) Lowering Emissions and Alternative Energy Sources

Bio-Diesel or Ethanol Blended Fuels

As a means of reducing demands on non-renewable energy sources, an increasing variety of alternative fuels are becoming available. Bio-diesel can be produced by refining vegetable oil, including used cooking oil, and used in specially-equipped diesel engines or blended with petroleum diesel and used in standard diesel engines.

Ethanol or other alcohol blended fuels can also be used in appropriately equipped vehicles. These fuels are made from a blend of renewable and non-renewable energy sources and even though not completely renewable, they can off-set demands placed on non-renewable energy.

No sampled municipalities have a bio-diesel or ethanol blend requirement.

Note: This study did not examine emission and exhaust standards for vehicles. However, there are a number of emission standards at the municipal and state level that do impact food trucks, just as they would other vehicles.

Low Emission Generators

Low-emission and quiet commercial grade generators are the current industry standard for food trucks. Using these generators provides a more hospitable environment for customers immediately around the food truck. These generators are also typically found on the back or non-serving side of the food truck where their noise and exhaust is less noticeable to the customer.

No sampled municipalities have a requirement for low emission generators; however, some municipalities have concerns around the noise that portable generators can make and would prefer silent ones.

Energy Saving Equipment and Vehicle Outfitting

There are multiple upgrades and appliances available to food truck operators to realize greater energy savings. High efficiency and ENERGY STAR appliances have a lower energy draw than other appliances. Also, upgrades such as improved insulation and energy efficient lighting can reduce overall energy consumption of the vehicle.

No sampled municipalities have a requirement for energy saving equipment or vehicle outfitting. In this regard, the major focuses of municipalities are placed on food safety and properly maintained food handling stations instead of efficiency.

Solar Panels

Solar panels are composed of photovoltaic cells that can generate electricity from light without releasing additional greenhouse gasses. Solar panels installed on the roof or sides of a vehicle can be used to offset electricity consumed during food preparation and service.

No sampled municipalities have a requirement for vendors to install solar panels on their vehicles. Solar panels also tend to be less effective in colder climates or where taller office towers tend to block out the sun.

Electrical Tie-Ins and Alternative Energy Providers

Electricity generated for an electrical grid is typically cleaner than electricity produced by portable generators. The ability to tie a food truck into the electrical grid allows the vendor access to this cleaner electricity. Additionally, some electrical providers offer a commitment to generate alternatively sourced electricity from wind or other green initiatives, these initiatives could further offset greenhouse gas emissions.

No sampled municipalities have a requirement to plug into city electricity services; however, some municipalities encourage food trucks to access electricity from the grid

whenever possible. Vendors will typically pay a set-up or tie-in fee and then be charged a monthly fee for the electricity consumed.

Proper Propane Storage

Propane provides an easily transportable and reliable cooking fuel for food trucks. Many trucks are equipped with propane appliances or ovens which can be very readily turned on or off. When properly stored in a sturdy tank, propane is quite safe, however the regular motion and driving of a food truck may damage the tank or loosen fixtures creating a leak or explosion hazard.

All of the sampled municipalities have codes and conditions in place for the safe storage and transport of propane. These municipalities also restrict vehicles with propane tanks from entering parkades or other structures where the heavier-than-air gas might accumulate on lower levels. Regular inspection and maintenance of fuel tanks is important to maintain their safe usage.

2) Managing Waste

Compostable Service-ware

One of the most noticeable waste products of food trucks is their service-ware: plates, cups and cutlery. Food trucks are generally required, by health code regulations, to provide single-use service-ware items and are not permitted to reuse those items. This regulation can create waste at the post-consumer side of the transaction, however many food trucks have started providing one-time-use compostable service-ware to their customers to minimize landfill waste.

There are a small number of municipalities that either have a requirement for compostable service-ware or are examining introducing the requirement.

Composting Kitchen Waste

Kitchen waste is a by-product of almost all food production. However, much of this waste is compostable if appropriately sorted and collected at the point of generation.

There are a small number of municipalities that require the separation and collection of compostable kitchen waste and many more that endorse composting activities.

Recycling Cooking Oils

Cooking oils and fats cannot be composted in the same manner as ordinary kitchen waste. Disposing of these substances down the drain can also cause clogs and residue build-up in pipes and hoses. One of the most environmentally conscious means of disposing of cooking oil is to process and refine it into another usable product, whether that is bio-diesel or other non-food grade oils.

Wastewater Reduction and Grey Water Strategy

Food trucks require hot and cold running water from proper food preparation and sanitation. Due to space constraints there is a limited amount of water that these trucks can carry with them (between 20-50 gallons). This causes food truck operators to be conscious of conserving water. However, once the water is used it must also be collected as wastewater or grey water and disposed of in an appropriate manner.

Nearly all municipalities have regulations on dumping grey water and require this waste product to be dumped at an appropriate collection station. A common concern at grey water dumping stations is the presence of grease and other oils in the water that may, over time, clog their pipes. Some municipalities require the food truck to submit for approval a grey water strategy indicating how the food truck will manage its waste water.

On-Site Recycling, Compost and Trash Bins

Due to the amount of post-consumer waste generated by food trucks there are concerns that this waste may be inappropriately discarded by customers.

Many municipalities have regulations requiring food trucks to keep a clean area and provide waste bins for consumers. Other municipalities will be more specific stating that recycling, compost and waste bins must be provided for consumer waste. Other municipalities will provide appropriate waste collection bins at food truck sites and collect and dispose of the waste as a service. There are a variety of programs depending on the municipality's particular waste management strategy.

On-Site Washrooms

Food truck consumers and employees may need the use of a washroom during the truck's hours of operations. Most food trucks do not have an on-board washroom facility so employees and consumers must go elsewhere.

A small number of municipalities require that food trucks set-up a minimum distance to a public washroom or obtain written consent from another establishment that the food truck's employees or customers may use the establishment's washroom facilities.

3) Noise Reduction

Quiet Generators

Low-emission and quiet commercial grade generators are the current industry standard for food trucks. Using these generators provides a more hospitable environment for customers immediately around the food truck. These generators are also typically found on the back or non-serving side of the food truck where their noise and exhaust is less noticeable to the customer.

No sampled municipalities have a requirement for quiet generators; however, some municipalities have concerns around the noise that portable generators can make and

would prefer silent ones. General noise bylaws would apply to food trucks, just like any other business.

4) Food Sourcing and Selection

Locally Sourced Food

Using locally sourced food avoids the additional transportation costs and pollution impacts of transporting the food over potentially thousands of kilometres. It also reinforces support for the local economy and regional farmers.

Some municipalities encourage using locally sourced foods in food trucks, however none have it as a requirement.

Organic, Sustainable, or Ethical Food

Organic, sustainable and ethical foods are typically seen as premium products and can act as a major influence on a consumer's product choice. Organic and sustainable foods are typically seen as less harmful to the environment and ethical foods are less harmful to animals as well as provide farmers in developing countries a larger return on their agricultural goods.

Some municipalities encourage using organic, sustainable and ethical foods, however none have it as a requirement.

Conclusion

Food trucks have the potential to be very environmentally friendly, and many are taking on their own initiatives to meet higher levels of environmental standards. Minimum environmental standards are typically achieved through non-food truck bylaws or legislation from other orders of government: noise bylaws, waste management bylaws, emission standards, and anti-dumping laws are examples of these; where as food truck regulations are mainly focused on operating locations, hours and proximity to other businesses or public places.

The City has numerous opportunities to incentivise food trucks to become greener. However, not all green initiatives will be cost effective or practical for each food truck's business operations. Food trucks are currently very popular with more trucks coming on board every year. As food trucks are still in their infancy in Calgary, careful attention must be paid to ensure that increased regulations provide value and do not stifle the low-barriers to enter the business that attracts creative and entrepreneurial chefs who challenge the status-quo.