



AVANGRID - NY GAS

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# Residential Methane Detectors (RMDs)

*Natural Gas Detector Distribution Program  
at NYSEG and RG&E*

April 19, 2023

# RMD Program Overview

- About AVANGRID NY Gas
- Research and Development at GTI
- Non-competitive Strategic Benchmarking
- Model Selection
- Logistics
- Internal Coordination
- Internal Communication
- Early Success Story
- Process Improvements
- Future



# AVANGRID NY Gas

Iberdrola S.A.

↳ AVANGRID

↳ Networks

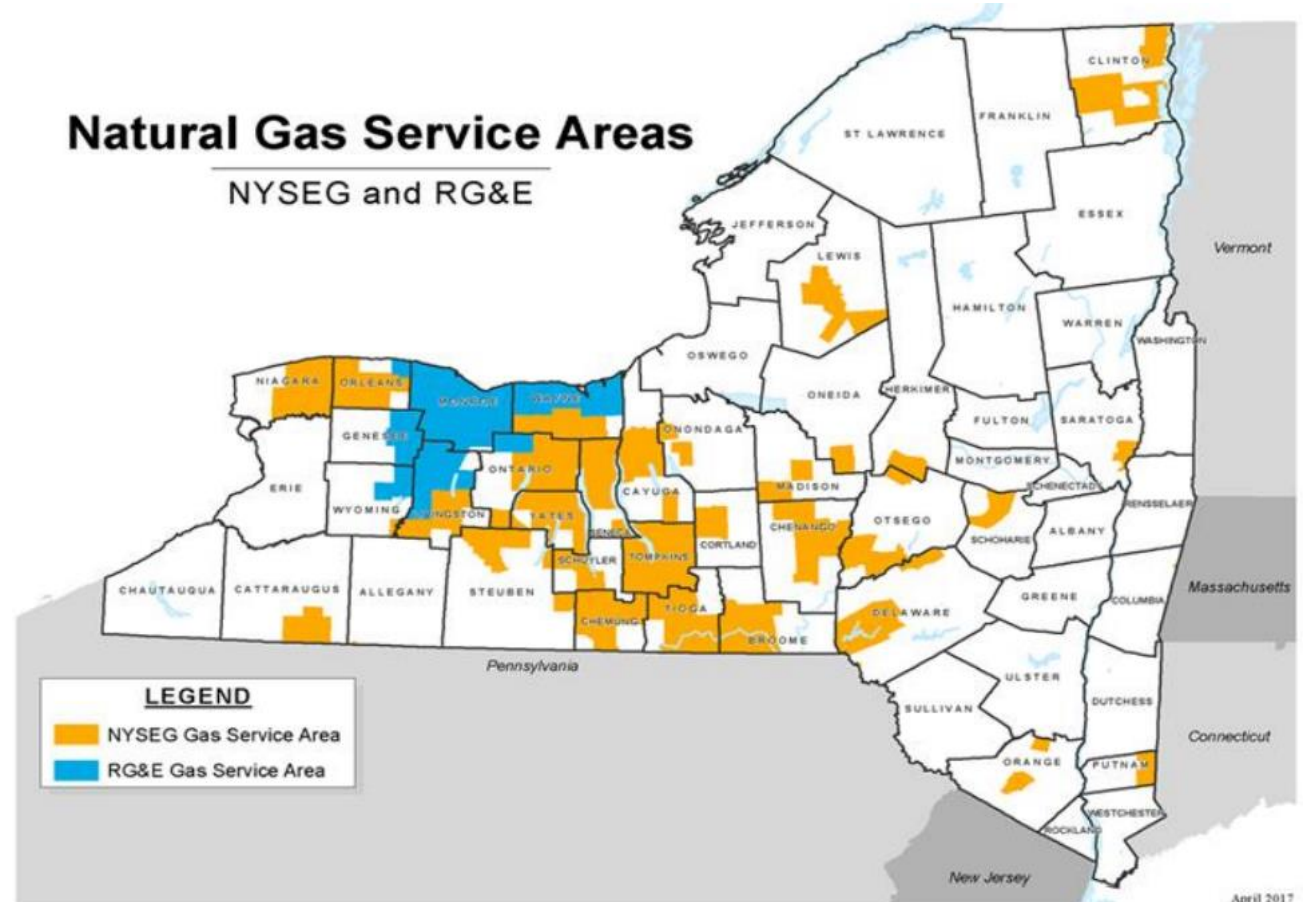
↳ New York

↳ NYSEG

↳ RG&E

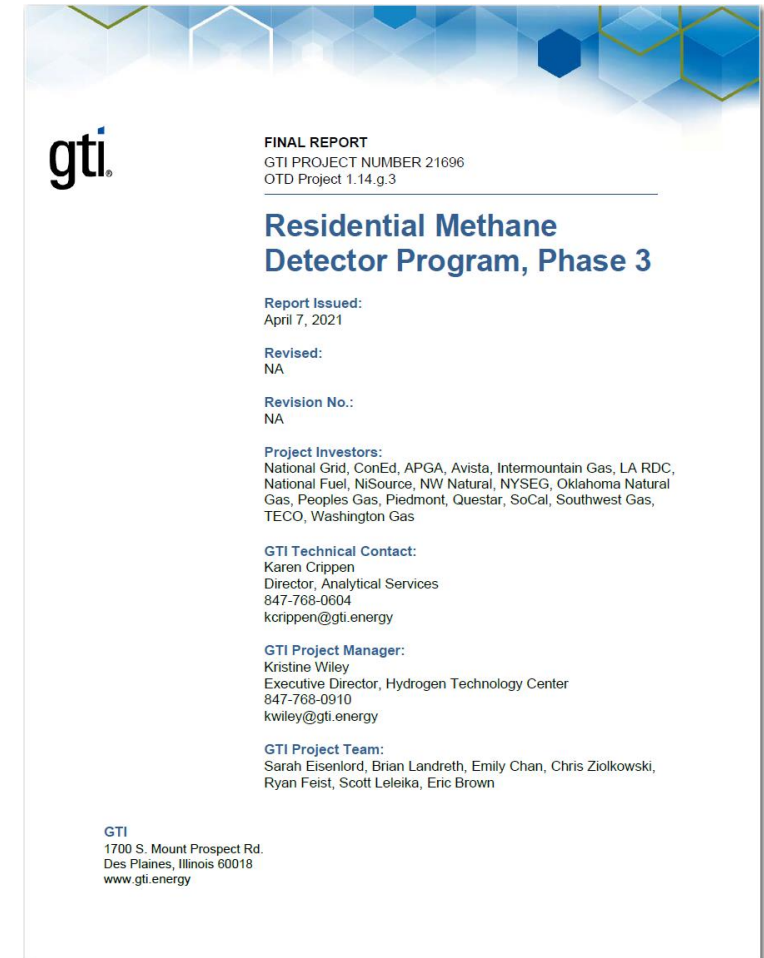
RG&E - 319,000 natural gas customers

NYSEG - 270,000 natural gas customers



# RMD Research and Development at GTI

- Laboratory & Field Tests
- Various residential methane detectors evaluated
  - North American markets
  - UL approved
- Several testing parameters such as:
  - Methane detection based on LEL's levels
  - Influences of household chemicals
  - Relative humidity
- Sufficient detector performance
  - Reliability
  - Capability (detects lower levels of methane)



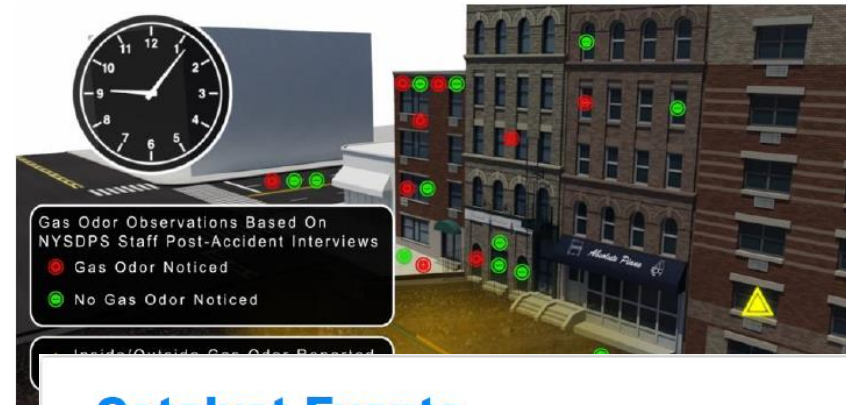
(Reference GTI Final report OTD 1.14g3) Residential Methane Detector final report dated 4/7/21)

# RMD Non-competitive Strategic Benchmarking

Rick Trieste  
at ConEd

- 10% LEL
- Battery Operated
- Customer Install
- Currently in Market

## East Harlem Incident Investigation Finding



## Catalyst Events

- East Harlem explosion 3/12/14

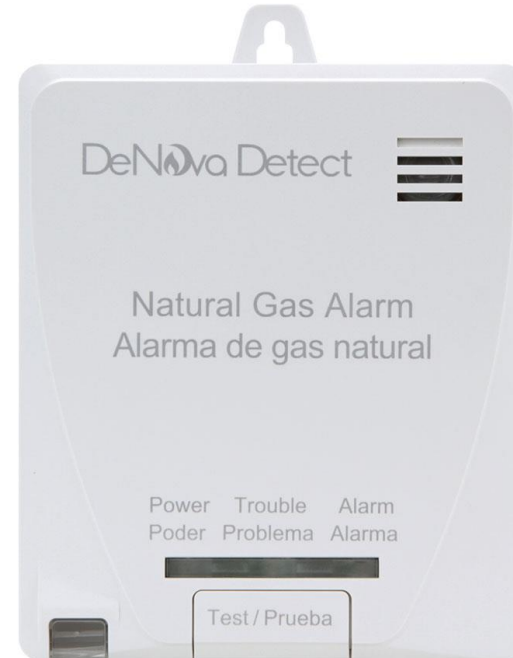


- East Village explosion 3/26/15



# RMD Model Selection

- 10% LEL
- Battery Operated
- Customer Install
- Currently in Market



## **DeNova Detect 310B Battery Operated Natural Gas Alarm**

- Superior MEMS Sensor Technology
- Battery Only Power – Allows for Placement Anywhere
- 85db Alarm + Voice Alerts in English and Spanish
- 10% LEL Methane
- Listed to UL1484
- Wireless Versions Available: LoRaWAN, AMI, LTE and more
- 6-Year Life, 6-year Limited Warranty

# RMD Distribution Logistics

## North American Distributor: eAccess Solutions

- Warehousing, individual custom kitting, & residential shipping
  - 3PL Services
- Delivery & tracking verification
- Support services
  - Return processing
  - Warranty execution
  - Technical support
- Online video instruction

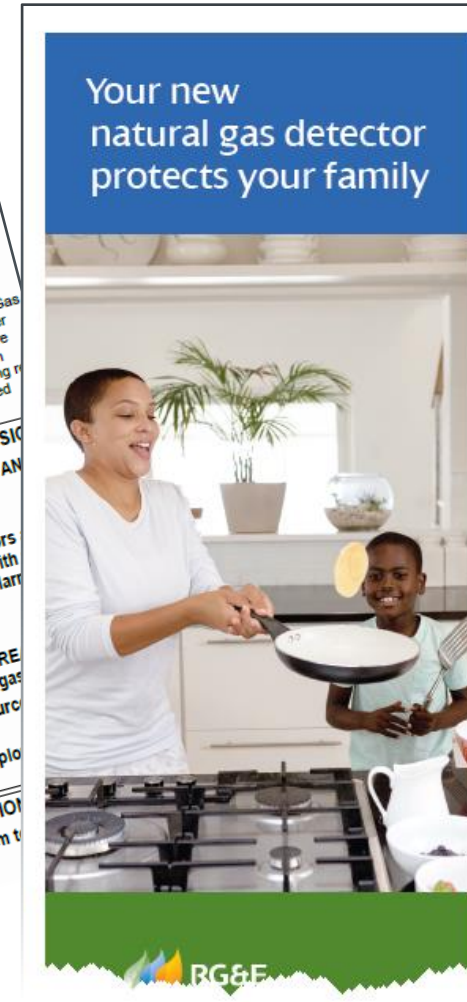
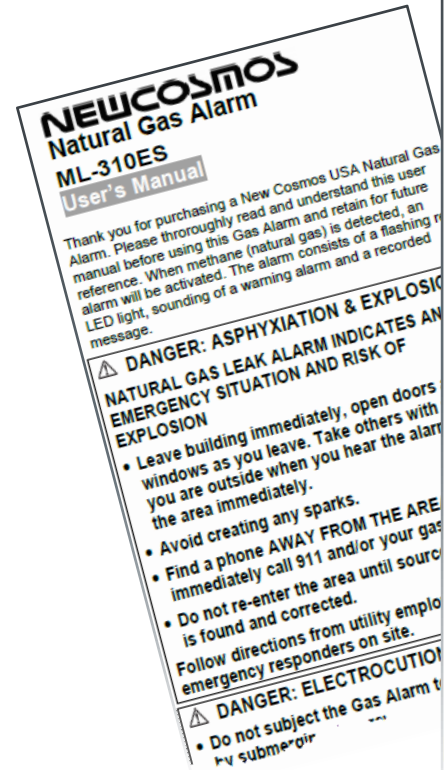


**eAccess Solutions** is an officially licensed North American distributor for Honeywell, Universal Security, Resideo, First Alert and New Cosmos/DeNova Detect safety products. Since 2007 eAccess has worked with hundreds of utility companies to provide their customers the (Methane, Smoke/Fire, Propane, CO, Water) detection equipment they need to stay safe.

- Custom end user kitting/shipping
- 3PL services
- Bulk shipments
- Warehousing
- Custom branded online purchase portals
- Coupon discount offers
- Phone order processing/support
- More

# RMD Internal Coordination

- Funding
- Addresses
- Kitting Materials
- English/Spanish manual
- Internal Communication
  - Customer Service
  - Field Workers (Emergency Response)
  - Fire Departments





# RMD Internal Coordination

## If the natural gas detector alarm sounds, respond immediately!

Don't assume it's a false alarm.



- ✔ Assume there's a dangerous natural gas leak. **Leave the area quickly**, taking everyone with you.
- ✔ **DO NOT use the telephone or any electrical appliances** including light switches, garage door openers, doorbells, radios, TVs or cell phones. A spark from any of these sources could ignite the gas, causing a fire or explosion.
- ✔ **DO NOT assume** someone else will report the leak.
- ✔ From a safe location, **call 911** or **call NYSEG's gas emergency number** at 800.572.1121. Provide the exact location, including cross streets, and inform the dispatcher of any recent sewer construction or digging activities nearby.
- ✔ **DO NOT go back inside** your home or building until NYSEG personnel say it is safe to return.
- ✔ **DO NOT disconnect the gas detector battery** to silence an alarm. A spark could cause an explosion. Leave the area quickly and do not go back inside until NYSEG or emergency responders say it is safe to return.

## NYSEG's residential natural gas detector program

This device provides early warning of leaking natural gas inside your home. Your experience with this technology will help us improve natural gas safety in your community.

### Natural gas leaks can be hazardous

Natural gas is delivered safely and efficiently to our homes for cooking, heating, water heating and other household uses. But on rare occasions, natural gas may leak from home appliances, equipment, piping connections or underground pipelines. If natural gas accumulates indoors and is ignited by a flame or spark, a deadly fire or explosion may result.



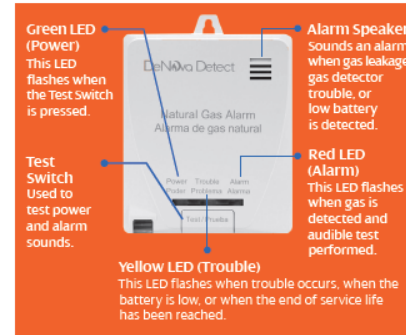
### How a natural gas detector protects your family

Natural gas is colorless and odorless. A distinctive, pungent odor, similar to rotten eggs, is added to natural gas so that you will recognize it quickly. However, this odor may fade or be masked by other smells, so relying on your nose is not a sure way to detect a gas leak.

Natural gas consists primarily of methane. The natural gas detector constantly measures the concentration of methane in the air, and sounds an alarm to alert you before dangerous, flammable levels are reached.

### How it works

If your device detects a critical level of natural gas in your home, a red light flashes, and a loud alarm beeps. Please refer to your user's manual for specific natural gas alarm characteristics.



### Inside natural gas safety inspections

As part of our commitment to safety, we are conducting safety inspections of inside natural gas meters and service lines. These safety inspections are required by New York State and ensure the safe delivery of natural gas to your home. We may be in your neighborhood to complete this free inspection. If you're not home when we arrive, we'll leave information on how to reschedule. Thank you!



### User tips

- Your natural gas detector should be installed inside your home in a room where a natural gas appliance is located, such as a furnace area, kitchen or laundry room where a leak could occur.
- Install your detector at least 10 feet away from your natural gas appliance.
- Your detector should be installed and mounted 4 to 12 inches from the ceiling.
- Place detector in an open area away from curtains, windows, doors, or sources of water or humidity.

### If you have children in your home

- Keep small children away from the unit and do not let them play with it.
- Explain to children what the different lights and alarm sounds mean.
- Teach children to leave the home immediately and tell a trusted adult if the unit begins to flash or beep.

### Test the device weekly

To test your natural gas detector, press the "test" button until you hear the device beep once and release to see the green LED light blink. To test the audible alarm, press and hold the "test" button for 5 seconds. You'll hear the device beep twice, then release to see the red LED light blink along with the audible message. Please refer to your user's manual for full testing procedures and battery replacement.

If the alarm ever fails to test correctly, **contact the manufacturer** for a replacement immediately. Please see your user's manual for comprehensive installation, maintenance and testing instructions.



## Help prevent natural gas leaks

Never depend on your natural gas detector as a substitute for proper equipment installation, use, and maintenance.



Have all gas appliances installed, serviced and annually inspected by licensed or qualified professionals. Read and follow the manufacturer's instructions for operating your gas equipment.

### Protect natural gas pipelines in your area

Call **811** before you dig, and insist that any contractors who work for you do the same. The free **811** service will arrange for the marking of nearby natural gas pipelines and other buried utility lines so excavation can occur a safe distance away from them. Gas pipelines are marked with yellow flags or paint.



State law requires you to notify **811** at least two full working days

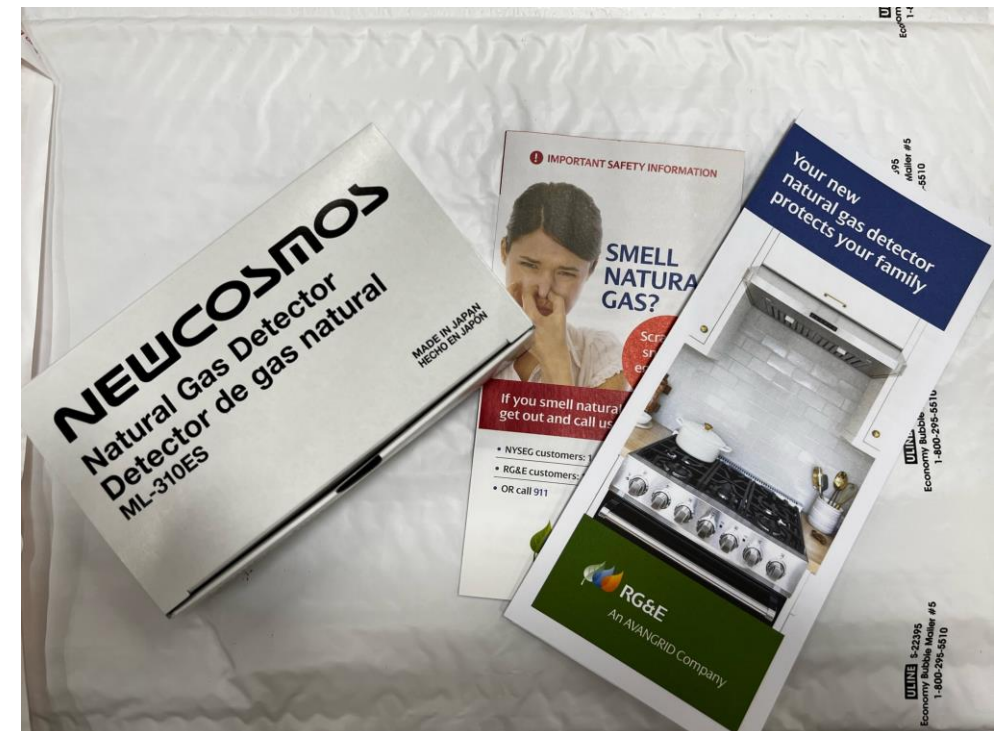
 before any excavation starts, excluding the day of notification, weekends and legal holidays. Call **UDIG NY** at **811** or **800.962.7962**, or use the online request system at [udign.org](http://udign.org).

### Smell Gas? Act Fast!

From a safe location, call 911 or call NYSEG's gas emergency number at 800.572.1121. Provide the exact location, including cross streets, and inform the dispatcher of any recent sewer construction or digging activities nearby.

# RMD Internal Communication

- Direct-shipped to residential gas customers
- Alarm activates when level of natural gas reaches or exceeds 10% LEL
- Customer-installed, instructions on how & where to install described in user manual
- NYSEG/RG&E is not installing
- Warranties provided by manufacturer
- NYSEG/RG&E is not maintaining
- Fully battery-operated, stand-alone devices
- Not wi-fi enabled, not “smart” devices, etc.
- Customers should direct questions to manufacturer
- Internally distributed sample detectors to gas operations centers



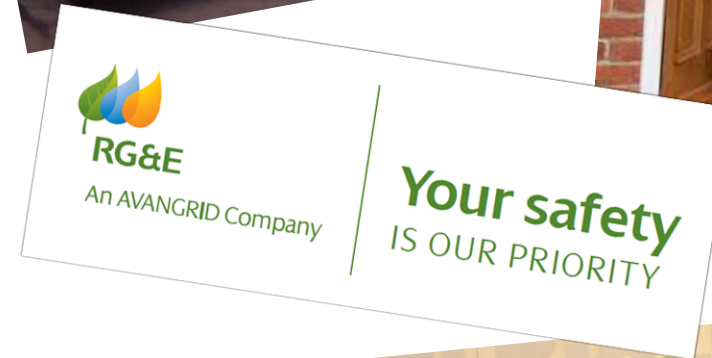
# RMD Early Success Story

- Single-family home
- Mother & Son
- Installed per instructions just weeks earlier
- Detector alerted residents
  - “Danger, gas leak explosion risk. Evacuate, then call 911.”
- Customer did not smell gas
- Fire & RG&E responded
- Stopped leak at meter



# RMD Process Improvements

- Return rate assessment
  - 0.5%
  - 1.8%
  - 0.6%
- Delivery refusal mitigation
  - Sticker on front of
- Fire Departments communication
- FedEx & USPS
- Global chip shortage



# Future of RMDs

- Program continuation
- Smart Grid (AMI)
  - Wireless
  - ITRON
  - Gas Control Dashboard
- Customer checkout options
  - NG
  - NG/CO
  - Smart home
- Truck stock
- Expansion to sister companies

SUMMARY SLIDE





## Residential Methane Detector Pilot Program

### **Scope**

In its continuing effort to provide a safe energy source, Corning Natural Gas Corporation will make Methane Detectors available in this pilot program, to its customers at no cost.

### **Detectors**

The following detectors (or their equivalent) will be utilized for this program:

- Kidde Nighthawk CO and Explosive Gas Alarm, Model KN-COEG-3
- First Alert Combination Explosive Gas and CO Alarm, Model GC01CN
- Universal Security Instruments, Inc CO and Natural Gas Alarm, Model MCND401

### **Deployment Strategy**

#### **Initial Roll-out**

- The Company will work with local fire departments within our service area. We will supply methane detectors to the five largest departments to distribute when they respond to an inside gas leak or odor call for a Corning Natural Gas customer. The fire departments will offer the Methane Detector to the customer along with safety and installation tips.
- Company Construction Inspectors will offer a Methane Detector to customers that have their gas interrupted as a result of leak prone service replacement along with safety and installation tips.
- Company Gas Technicians will offer a Methane Detector to customers that have their gas interrupted as a result of gas meter change-out along with safety and installation tips.

#### **Second Rate Year**

- Expand the program to include additional local fire departments.
- Continue the employee distribution listed in the Initial Roll-Out and begin having Line crew offer Methane Detectors to the customers during meter move-outs.
- Meter Readers offer a Methane Detector to customers.

Addresses and names will be recorded for each detector distributed.



**Program Costs**

The following is the estimated cost for this program:

Average cost per Detector: \$63.52

Program Administration: \$1,000

The cost of the detectors is dependent upon availability. Program Administration includes the development of educational materials to be distributed to the customers with each detector and costs associated with tracking the program. This also includes expenses associated with training the Fire Departments and Company employees about the program.

**Schedule**

Depending on the availability of the Methane Detectors, the company will begin distribution in September of 2022.