

# MITIGATING THE SPREAD OF VIRUSES

Viruses Can Spread When There Is Lack Of Fresh Air

## 35 Years Of Experience

RJ Energy has over 35 years of experience in clean air solutions. Prior to COVID-19, we have been investigating other causes of indoor air pollution such as fuel burning appliances, asbestos, central heating / cooling systems, humidification devices, excess moisture, and outdoor sources such as radon, pesticides, and outdoor air pollution.



## Covid And Indoor Air Quality

There are many steps that can be taken to reduce the potential for airborne transmission of COVID-19. Factors such as the building design and layout, occupancy and type of heating, ventilation, and air conditioning (HVAC) system, can all impact potential airborne spread of the virus. Improving indoor air quality in addition to social distancing, wearing cloth face coverings or masks, surface cleaning and disinfecting, handwashing, and other precautions are all very important tactics in stopping the spread of COVID-19.

## ND Economic Resiliency Grant (ERG) Program

RJ Energy is an approved provider of services for the ND ERG program. ERG's internationally recognized air quality specialists support federal, regional, state, local, and tribal government agencies in their work to ensure that all citizens have safe, healthy air to breathe. Restaurants, bars, breweries, cafes and similar on-site dining establishments have the ability to apply for the ERG program.

## Our Services

### Indoor Air Quality



We measure a broad range of indoor air quality issues that are associated with health effects. We monitor airflow, CO2 levels, air balance, and temperature control. We're able to confine air in specific rooms to avoid clean air contamination.

### Predictive Diagnostics



Our proprietary monitoring software shows real-time energy trends across all systems within commercial buildings. It detects issues and equipment failures before they escalate into bigger, more costly problems.

### Energy Saving Solutions



Solutions can include simple modifications that can result in long-term savings. Different parts of the country consume energy differently. We are experts in identifying the source of the problem. Our goal is efficiency.

## RJ Energy COVID-19 Building Solutions

Many proven studies have shown that viruses can spread when there is lack of fresh air which in turn increases the CO2 levels. It has also been proven that viruses can be spread by the HVAC air handling systems and on surfaces. Even though most air handling systems have filters in place those filters are not designed to kill viruses. These are common solutions implemented by our team to help reduce the spread of COVID-19 and the overall air quality of buildings for the future.

### Solutions

Ionization systems and installation materials

Self Contain Hepa Filter/UV lighting systems

UV light commercial grade sanitizer

Gateway, CO2 Sensors (2) Fresh air inlet Sensor and Setup

1 year subscription of monitoring

## Installing An Ionization Air Cleaning System In Each Air Handler

This helps kill the viruses and mitigates the spread of the coronavirus through duct systems. In the larger rooms that are used for larger gatherings of people, we would advise the use of a standalone Hepa Filter/UV light sanitizing system to give extra air purification when it is needed.

## Health Effects

Continuously wiping down areas with sanitizing solutions adds volatile organic compounds (VOCs) to the air can lead to the itchy eyes and sore throat. A substantial number of scientific studies now have found that chemicals, including VOCs, emitted from cleaning and sanitizing products may have health effects, primarily in those using the products professionally. A solution to this is the use of commercial grade UV light sanitization units to kill bacteria on surfaces.

## Inadequate Ventilation

This can increase indoor pollutant levels by not bringing in enough outdoor air to dilute emissions from indoor sources and by not carrying indoor air pollutants out of the area. High temperature and humidity levels can also increase concentrations of some pollutants. Our team insures systems are working effectively; fresh air is being allowed inside and the CO2 levels are maintaining a healthy level (400-2000 PPM). We monitor those levels, so you area able to provide the best protection for your staff and customers.

## Increasing Ventilation

The EPA recommends increasing ventilation with outdoor air and air filtration as important components of a larger strategy that includes. By themselves, measures to reduce airborne exposure to the virus that causes COVID-19 are not enough since airborne transmission is not the only way exposure to SARS-CoV-2 could potentially occur.