

# Air Quality 101

How Beneficial  
Electrification Can  
Improve Air Quality

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# You Will Leave Today Knowing



The Different  
Types of Air  
Pollution



The health effects of  
air pollution, and  
Utah's unique issues



Indoor gas  
combustion  
increases the risk of  
asthma

# Poor Air Quality Leads to Poor Health

## **PARTICULATE MATTER (PM)**

MORTALITY,  
AGGRAVATION OF  
RESPIRATORY AND  
CARDIOVASCULAR  
DISEASE.

## **GROUND- LEVEL OZONE**

AGGRAVATION OF  
RESPIRATORY  
ILLNESSES SUCH AS  
ASTHMA, EMPHYSEMA,  
AND BRONCHITIS.

## **CARBON MONOXIDE (CO)**

REDUCES THE  
ABILITY OF BLOOD  
TO CARRY OXYGEN.

## **LEAD**

LEADS TO DECREASED  
IQ AND BEHAVIORAL  
ISSUES.

## **SULFUR DIOXIDE (SO<sub>x</sub>)**

AGGRAVATES  
RESPIRATORY ISSUES  
AND INCREASED ER  
VISITS.

## **NITROGEN DIOXIDE (NO<sub>x</sub>)**

AGGRAVATES  
ASTHMA AND  
INCREASED ER VISITS.



# Indoor Air Quality

- We spend 90% of time indoors. - EPA, 2018
- Burning gas indoors creates harmful levels of pollution. - EPA, 2008
- Children who grow up in homes with gas stoves have a 24-48% greater chance of developing asthma. - HEET Massachusetts and Mother Out Front, 2019
- Electric cooking creates less emissions & keeps your kitchen cool. - RMI, 2020

SOURCE: RMI, [HTTPS://RMI.ORG/INDOOR-AIR-POLLUTION-THE-LINK-BETWEEN-CLIMATE-AND-HEALTH/](https://rmi.org/indoor-air-pollution-the-link-between-climate-and-health/)

## Nitrogen Dioxide & Carbon Monoxide





# Air Quality Impacts the Economy and Quality of Life

- Air pollution shortens the life of the average Utahn by 2 years.
- Air pollution costs Utah's economy nearly \$2 billion annually!
- Fossil fuel pollution, such as burning natural gas causes or worsens many illnesses.

<https://lifesciences.byu.edu/air-pollution-costs-utahns-billions-annually-and-shortens-life-expectancy-by-two-years>





# Utah's Unique Geography Requires Proactive Measures

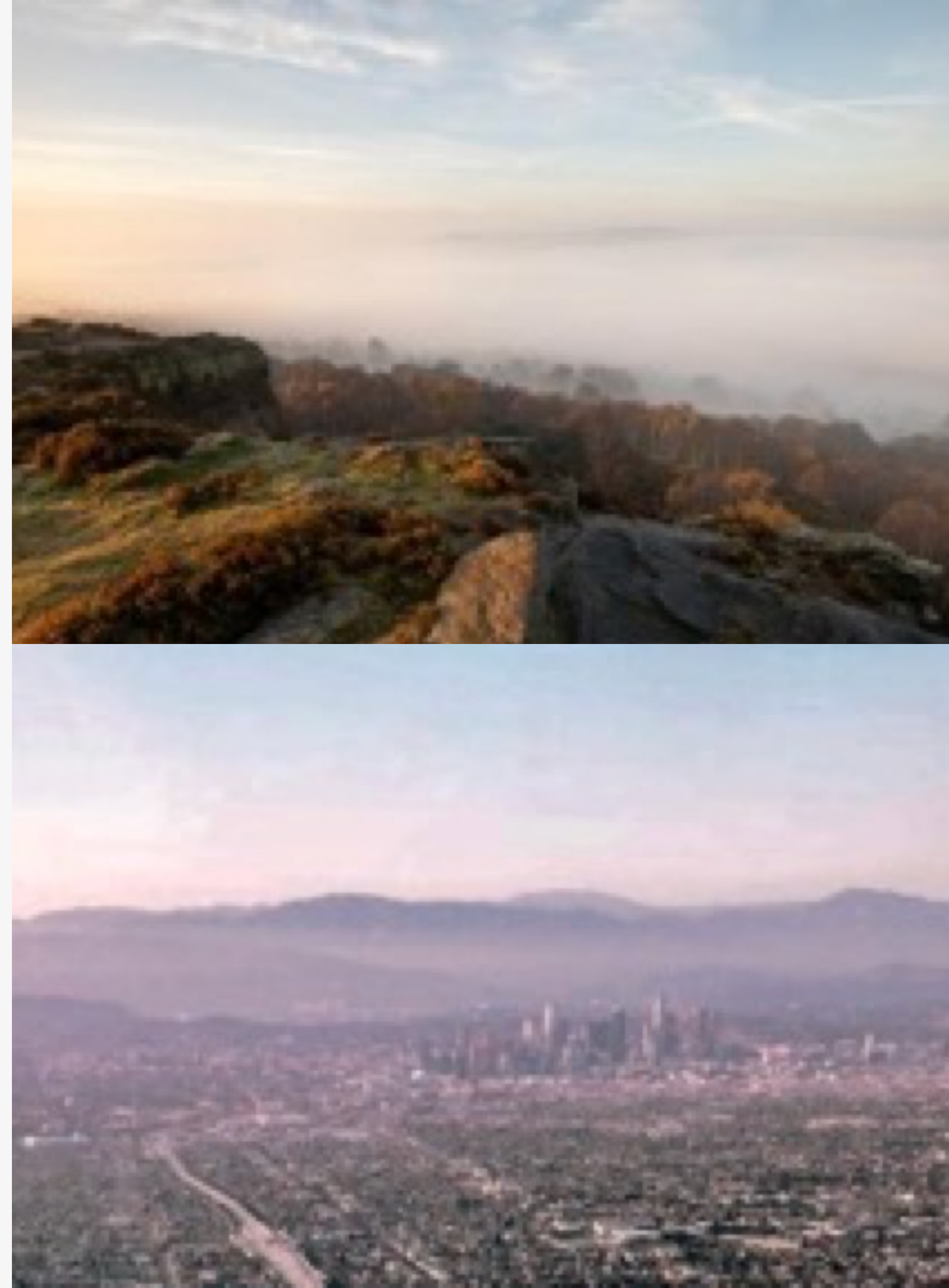
Utah is known for its winter-time inversions which trap PM 2.5 in the Wasatch Front and contribute to poor air quality.

- Primarily concerned with PM 2.5
- There are no more "silver-bullet" solutions.

Less well known is Utah's summertime issue with ground-level ozone.

- Moving towards "serious nonattainment"
- Careful planning by DAQ to reduce precursor chemicals.

These require Utahns to be even more proactive than other states because we cannot control weather-related events.





# What Can Be Done to Breathe Easy?

- Stop burning fossil fuels in our homes and along the Wasatch Front.
- Increase electrification of the built environment.
- Increase access to electric transportation
- Increase access to public transportation.
- Raise awareness and engage in policy discussions.





# Contact Information

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