# A REFINING ADJUSTMENT

*The struggling industry and a energy transition*

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# Current affairs

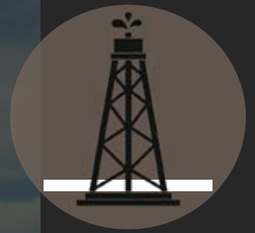


## Growth or Decline

The Oil industry has provided occupations for various people over the years. It has impacted how the world works. While the industry was booming it is now at a decline. The renewable energy industry is beginning to pick up, leaving oil industry workers wondering are there really going to be enough jobs to fulfill the old spaces.

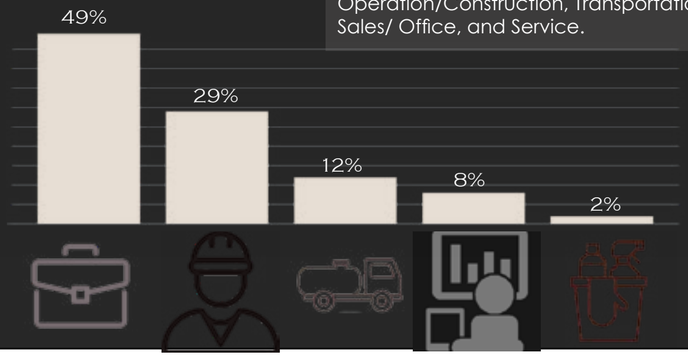
# How many Jobs does the Industry Provide

The oil industry in total supports 9.8 million jobs around the US. Due to the rapid growth in North Dakota and Texas, these areas have become the top producing in the oil production using fracking and drilling and have provided many jobs over the years. At one point, the Texas Region had replaced 100% of the jobs lost in the Great Recession. Currently, the industry is struggling despite the fact that the Oil Market is stablizing.



5.6 percent of total
U.S. employment

There are many jobs to do within the oil industry. There are 5 different categories of work that can be fulfilled. These include Management/ Business, Operation/Construction, Transportation, Sales/ Office, and Service.






# Top Producting Rig Count

As of May 2020
Weeks Total: 333/ 24

Eagleford: 17/-3

Haynesville: 32/+1

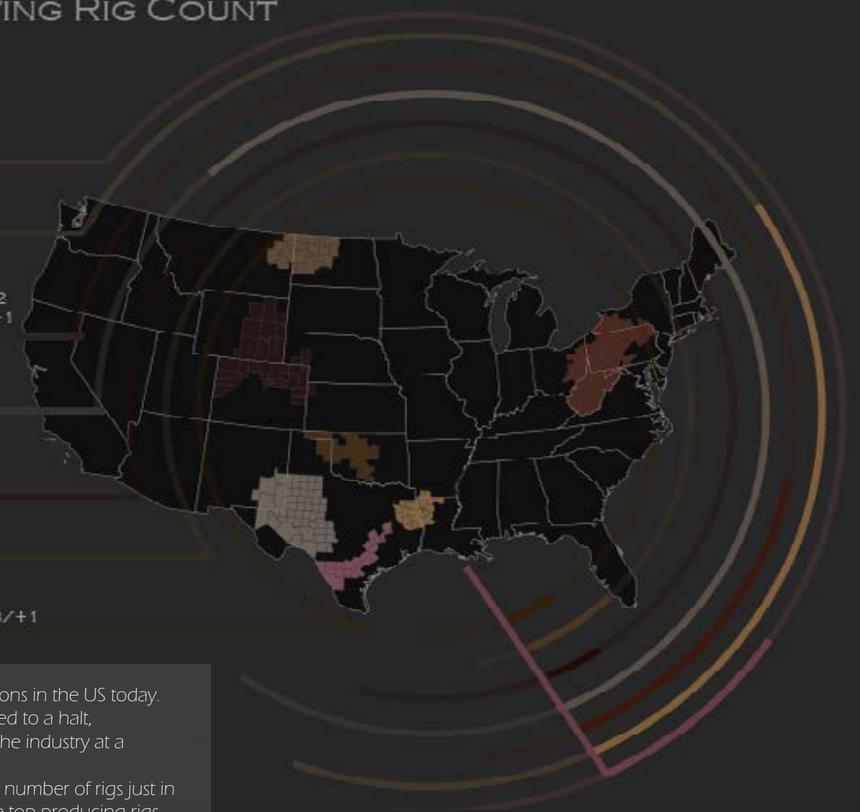
Utica: 11/+1
Marcellus Wet: 12/-2
Marcellus Dry: 16/+1

Permian: 171/-14

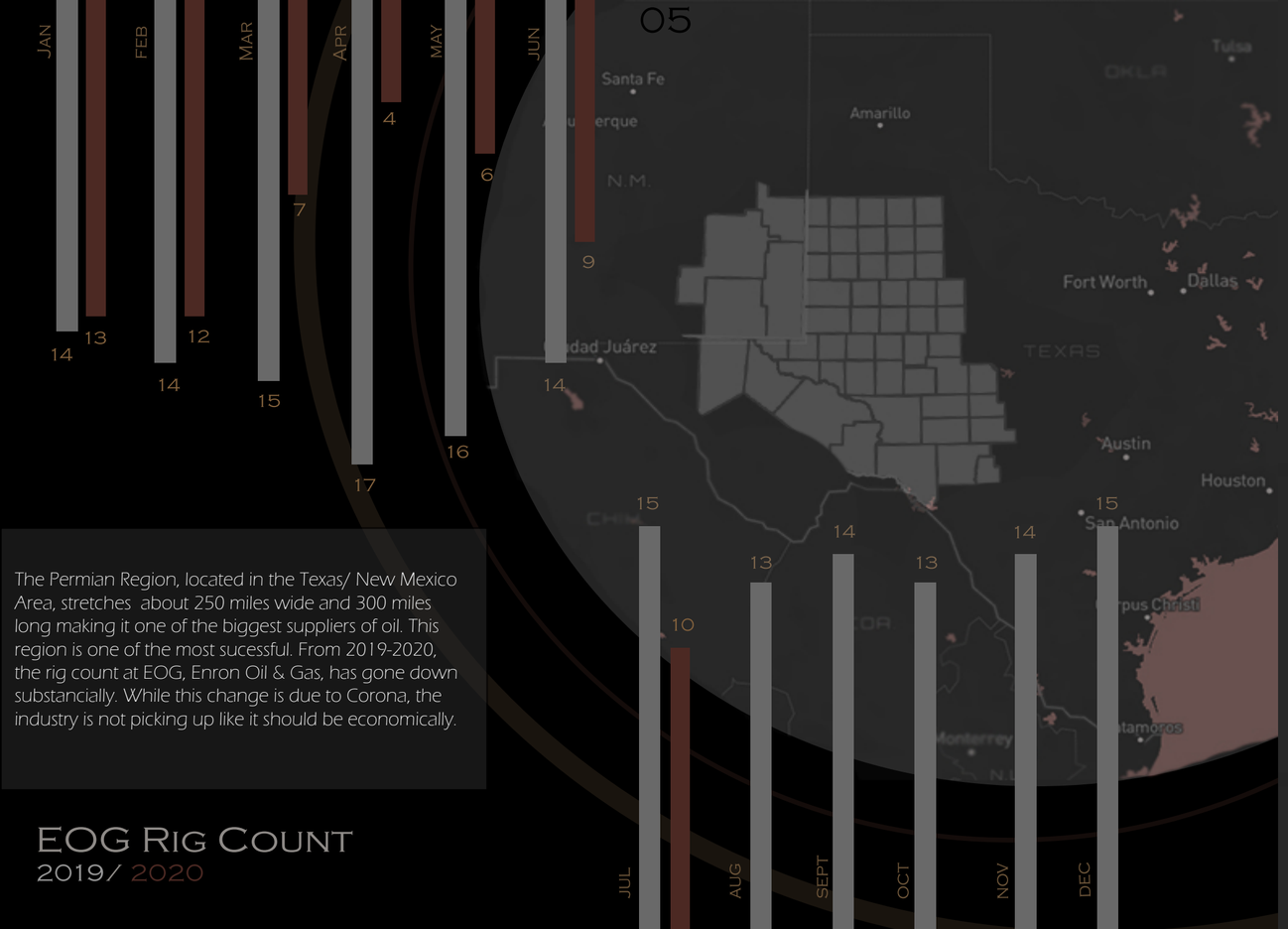
Scoop-Stack: 9/-2

Williston: 10/-2

Denver-Julesburg :8/+1



These are the top producing Oil Regions in the US today. During Corona, the oil industry, slowed to a halt, placing people withholding a job in the industry at a standstill.
This shows the decline/ incline of the number of rigs just in May of 2020. In total that month the top producing rigs lost 24 rigs.

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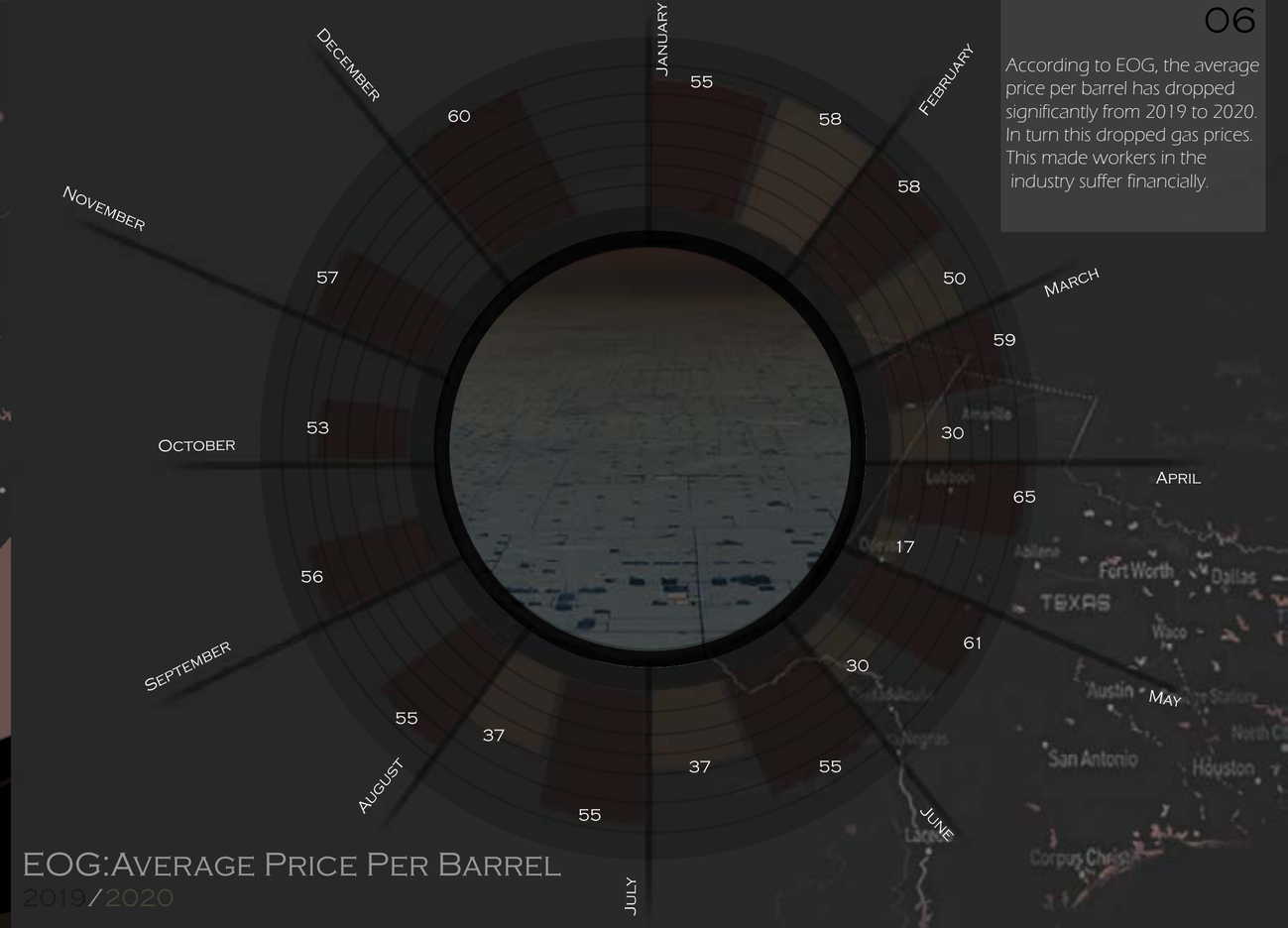
The Permian Region, located in the Texas/ New Mexico Area, stretches about 250 miles wide and 300 miles long making it one of the biggest suppliers of oil. This region is one of the most sucessful. From 2019-2020, the rig count at EOG, Enron Oil & Gas, has gone down substancially. While this change is due to Corona, the industry is not picking up like it should be economically.

# EOG Rig Count

2019/ 2020

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According to EOG, the average price per barrel has dropped significantly from 2019 to 2020. In turn this dropped gas prices. This made workers in the industry suffer financially.

# EOG:Average Price Per Barrel

2019/2020

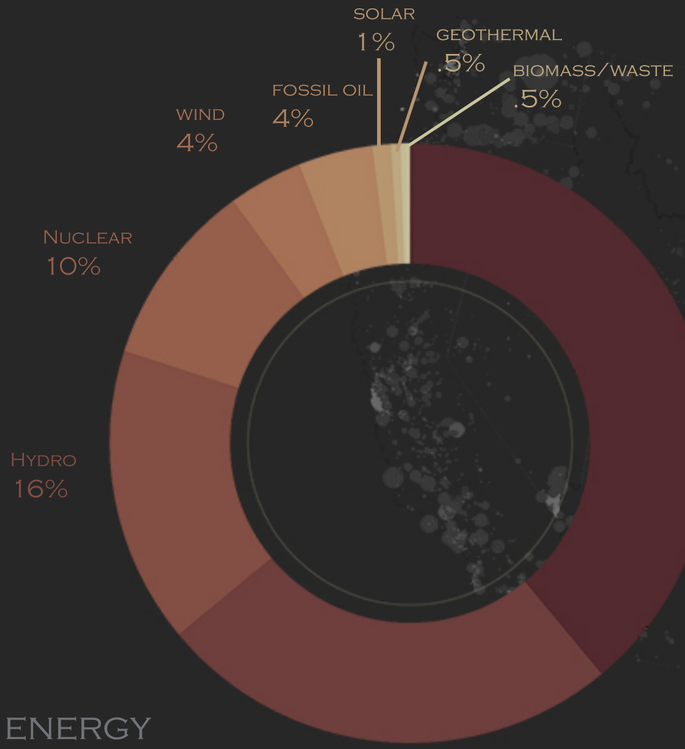
# 02

# A Crude Conversion



## A Changing Field

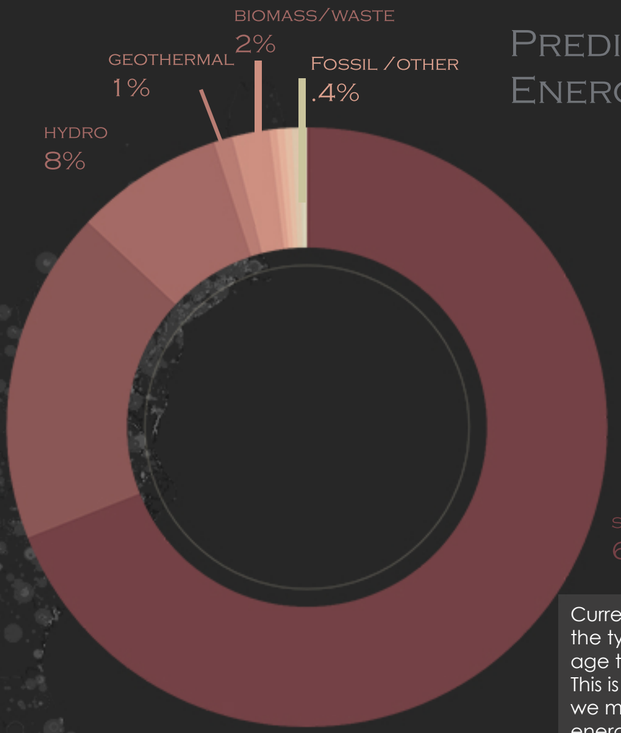
The transition to renewable energy might prove to be difficult and winding. Depicted is the muddled world of the in between once a transition takes place. In the long run is the change worth it and does it provide the same jobs as the oil industry?




## Average energy types in 2019



## Predicted Average Energy Types 2050



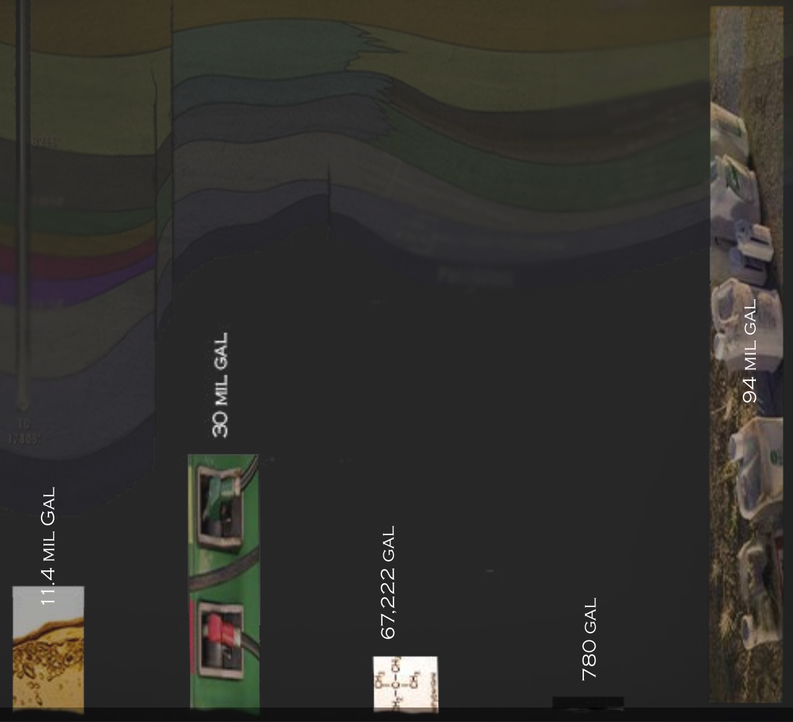

Currently the graph on the left depicts the types of energy's and the percentage that the US uses at the moment. This is expected to change by 2050 as we make a shift to more renewable energy providers. With this shift the big question still remains. Will the jobs translate from the oil industry to the renewable indusrty?

In the background is the current Renewable energy hotspots in the US today.

The majority of oil is brought up from the ground with a method called fracking. Essentially this method is the process of ejecting liquids at high pressures into the ground to extract more oil and gas. This process, in turn can actually have an effect on the environment. Overtime, there have been more and more harmful chemicals that have affected our air, soil, and water.

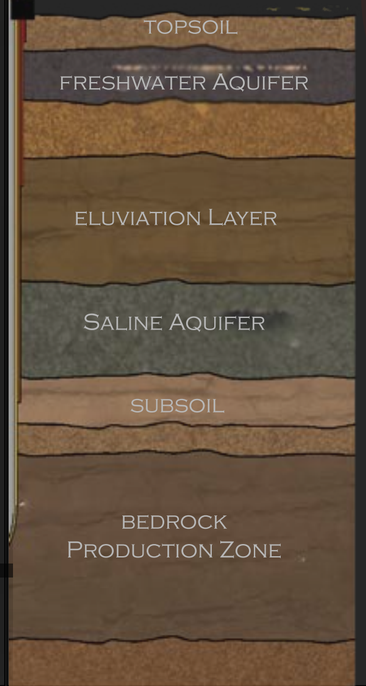
Renewable energy would provide a safer environment over all due to the fact that we would be working with the environment and not against it.

# Chemicals Used In Fracking

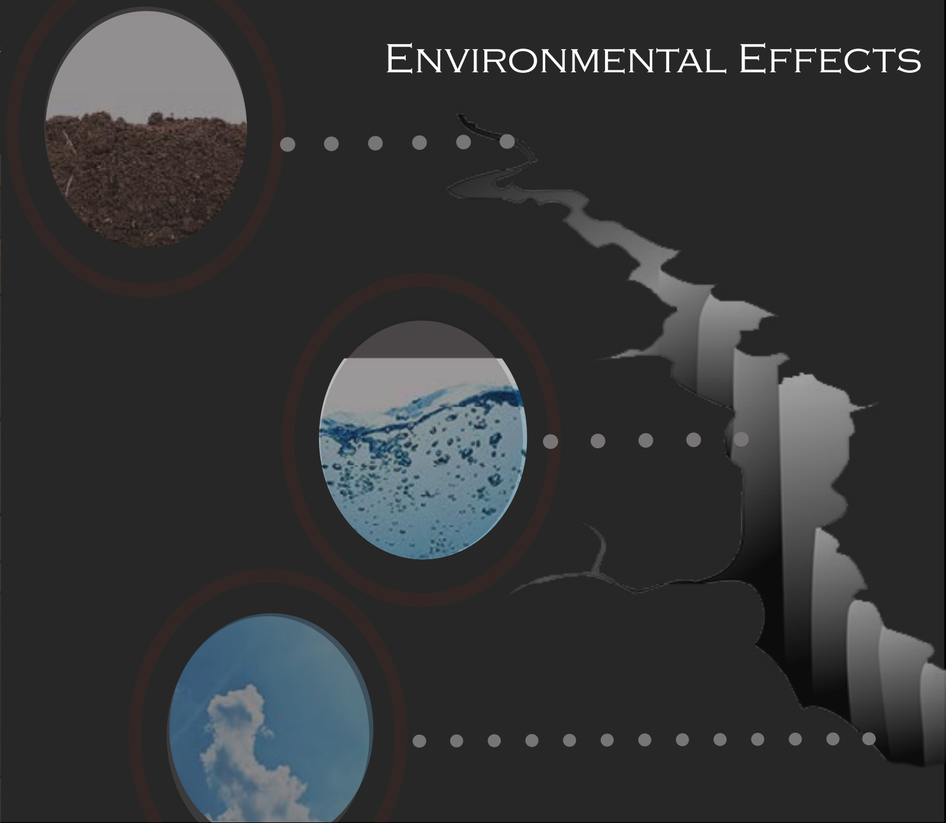





*Fracking in the oil industry can ultimately lead to the disruption of natural forces. This impacted the environment with in turn impacts our health. Including the soil, our water, and the air quality as well.*




# Environmental Effects

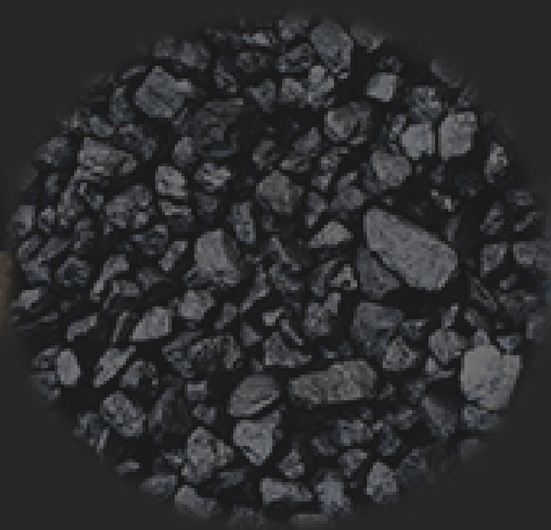


Man has always used different ways to provide energy. Something newer and better always arises and changes the old ways. Types of renewable energy have been around for years but the oil industry has reigned supreme of lately. As the oil industry declines, newer and better methods arise.



# Changing over The years

200000 BC



1690

1859

1868

1951

1993

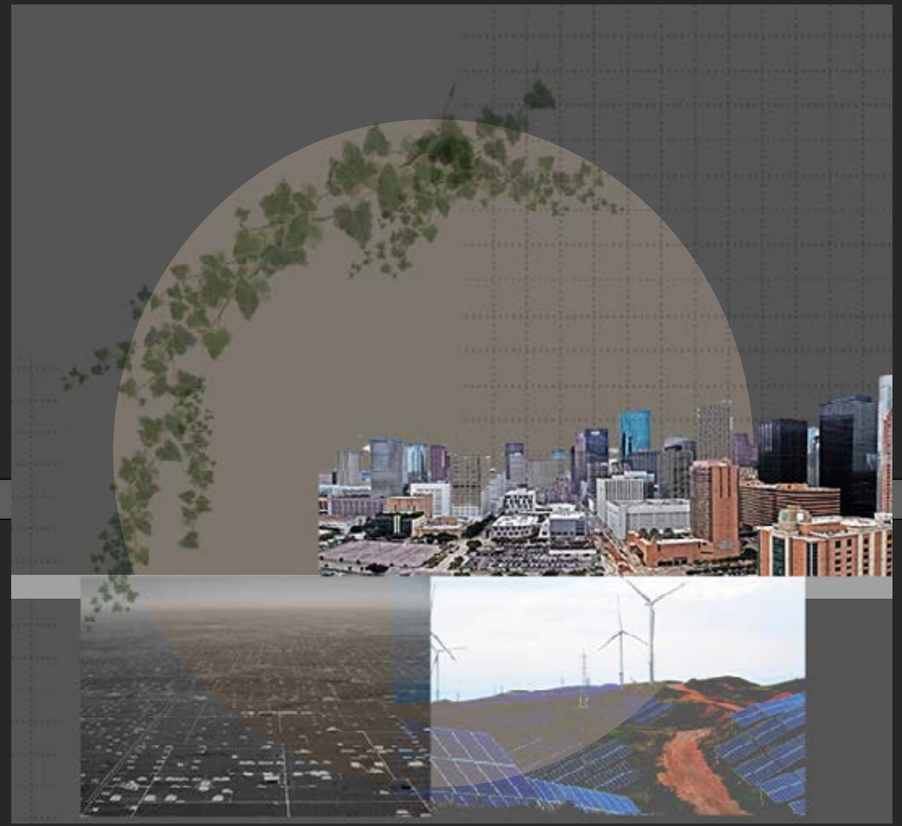
# 03

# Changing Times



## Costly Yet Beneficial?

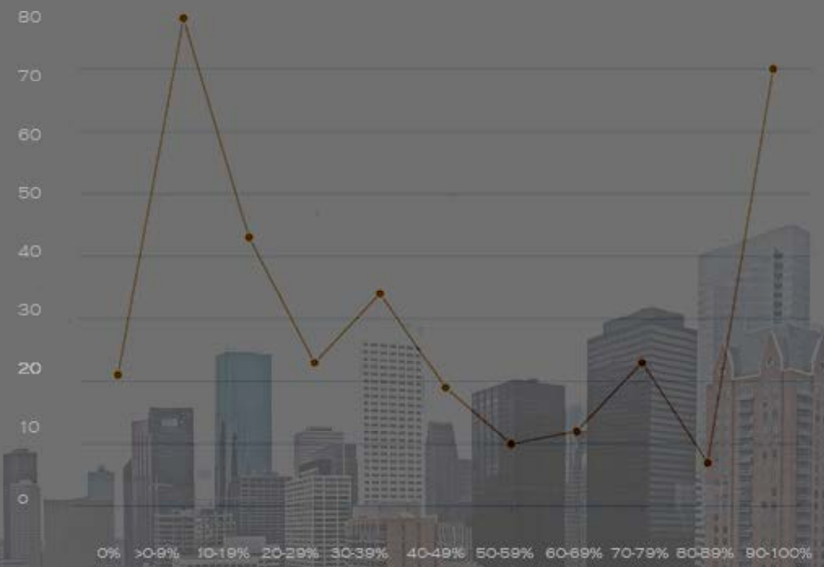
Every choice has advantages and disadvantages. Environmentally renewable energy shines over traditional methods and we are not using up as many natural resources. However, this change may affect jobs in the oil industry and how they transition. At first the change may be costly, but in the long run will it be worth it?



# Renewable Power In Cities Today

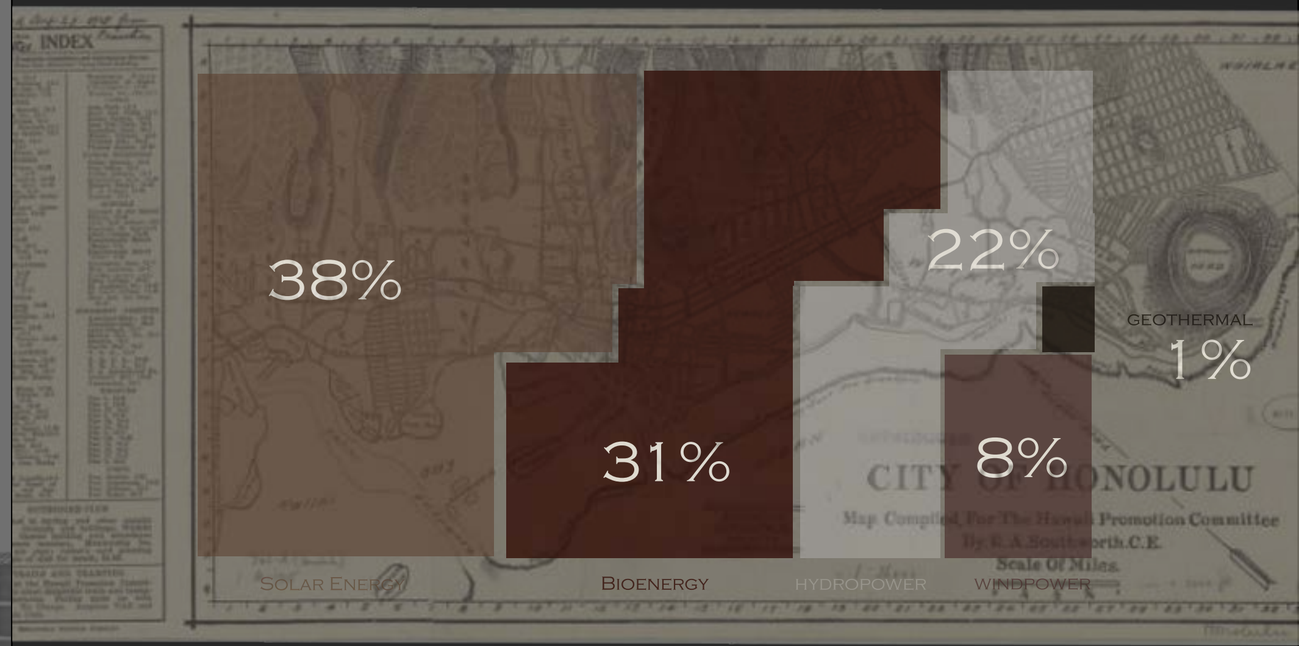
Global Average:
26%

City Average:
41%



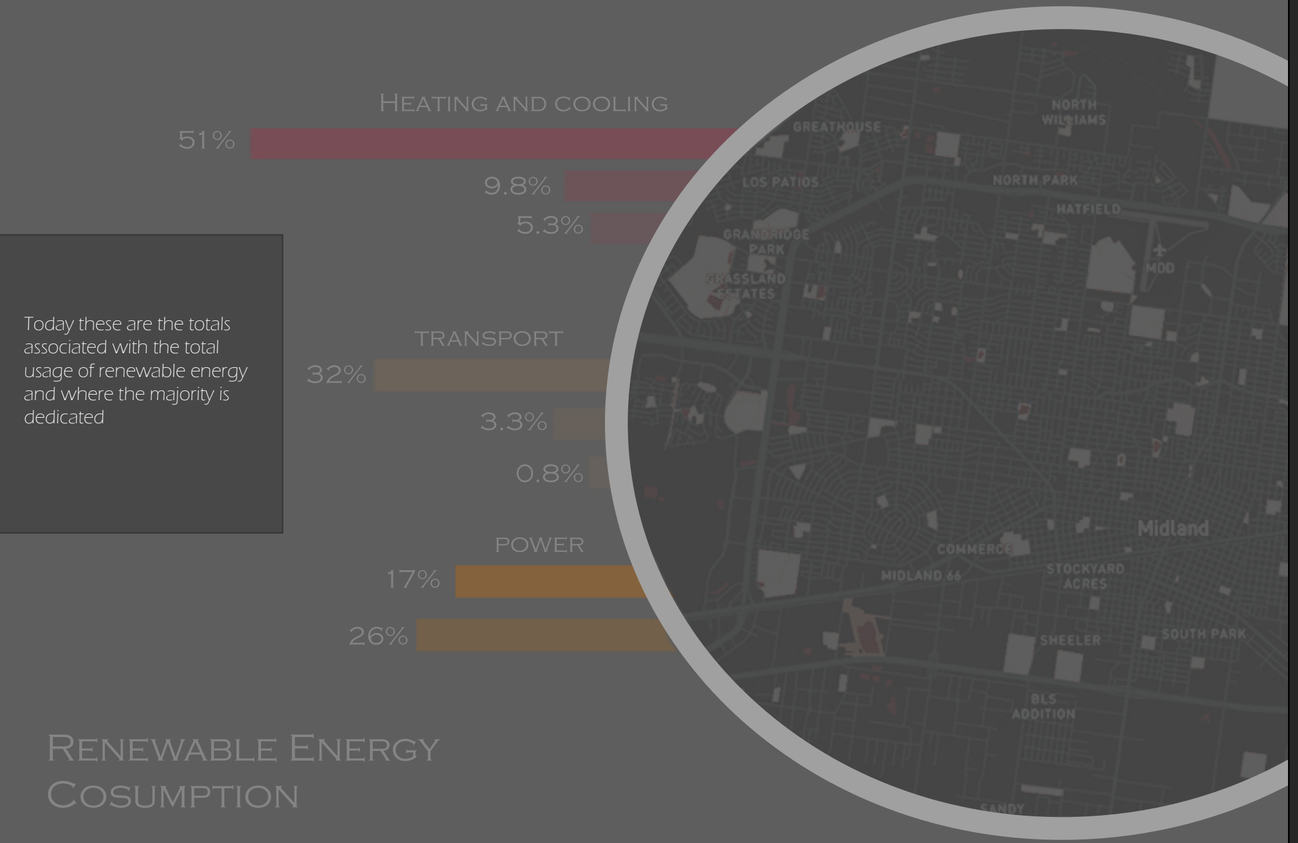

For 2020, the info provided shows the amount of cities and how much has been changed to renewable energy. Honolulu remains the top contender for the best in renewable energy. Since so many cities are already working on becoming renewable, this may help in the process towards becoming completely green for energy.






The amount of jobs in renewable energy seems to be booming by claiming to be able to provide 11 million jobs world wide.

# Predicted Jobs in Renewable Energy




Today these are the totals associated with the total usage of renewable energy and where the majority is dedicated

# Renewable Energy Cosumption

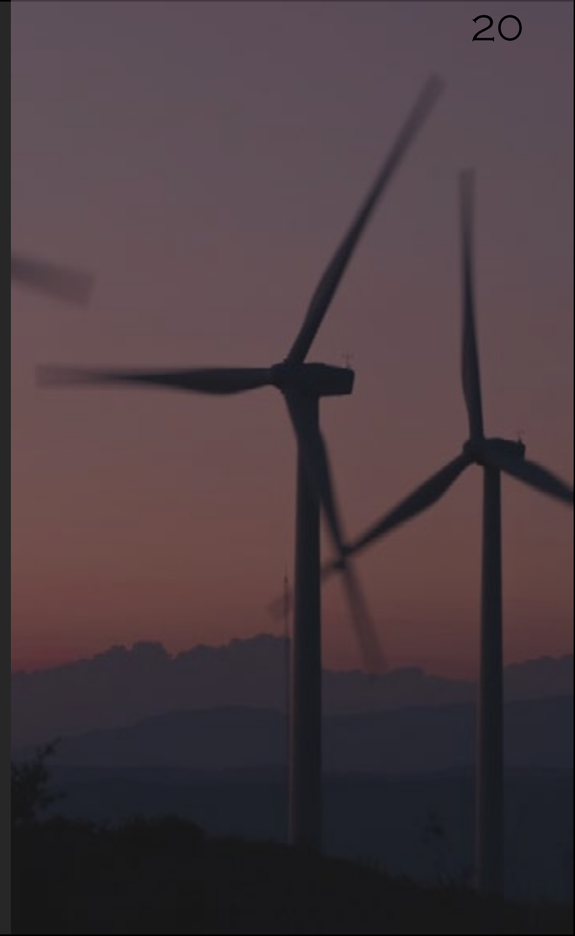
## Advantages

- it is sustainable and so will never run out
- require less maintenance
- reduces the costs of operation.
- little or no waste products

## Disadvantages

- it is difficult to generate the same quantities of electricity that is produced by fossil fuel
- reduce the amount of energy we use or simply build more energy facilities
- the reliability of suppl
- unpredictable and inconsistent.
- Costs more intially





While Corona was the catalyst for the decline of the Oil industry,in March of 2020 the Industry has yet to pick up and may not pick up. This is an opportunity to move to renewable energy sources. There eventually will be a transition to more green ways, but it might be more costly than we expect it to be. In the long run it will be worth it. The transition of jobs might be difficult. Some might leave the energy industry all together. However, there seems to be plenty of jobs to switch into.

# Resources


https://datausa.io/profile/naics/oil-gas-extraction
https://www.investopedia.com/ask/answers/011915/what-are-effects-fracking-environment.asp
https://www.businessinsider.com/chemicals-used-in-fracking-2015-5#unknown-chemicals-10
https://www.nrdc.org/stories/fracking-101#:~:text=Chemicals%20Used%20in%20Fracking,-Different%20chemicals%20are&text=Common%20ingredients%20include%20methanol%2C%20ethylene,considered%20hazardous%20to%20human%20health.
https://www.scottmadden.com/insight/fossil-50-energy-industry-jobs-yet-renewables-drive-future/#:~:text=In%202016%2C%20according%20to%20a,to%20oil%20in%20total%20jobs.
https://www.sciencelearn.org.nz/resources/1636-energy-sources-through-time-timeline
https://www.fircroft.com/blogs/how-and-why-you-can-transition-your-career-from-oil-and-gas-01762416365
https://www.linkedin.com/pulse/advantages-disadvantages-renewable-energy-ashraf-mahmoud
https://www.altenergymag.com/article/2020/05/disadvantages-to-using-renewables-over-traditional-fuel-sources/33096
https://www.api.org/oil-and-natural-gas/energy-primers/hydraulic-fracturing/how-many-jobs-has-the-oil-and-natural-gas-industry-created