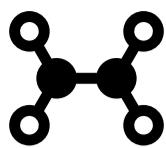


# THE FUTURE OF CLEAN CAR CHARGING

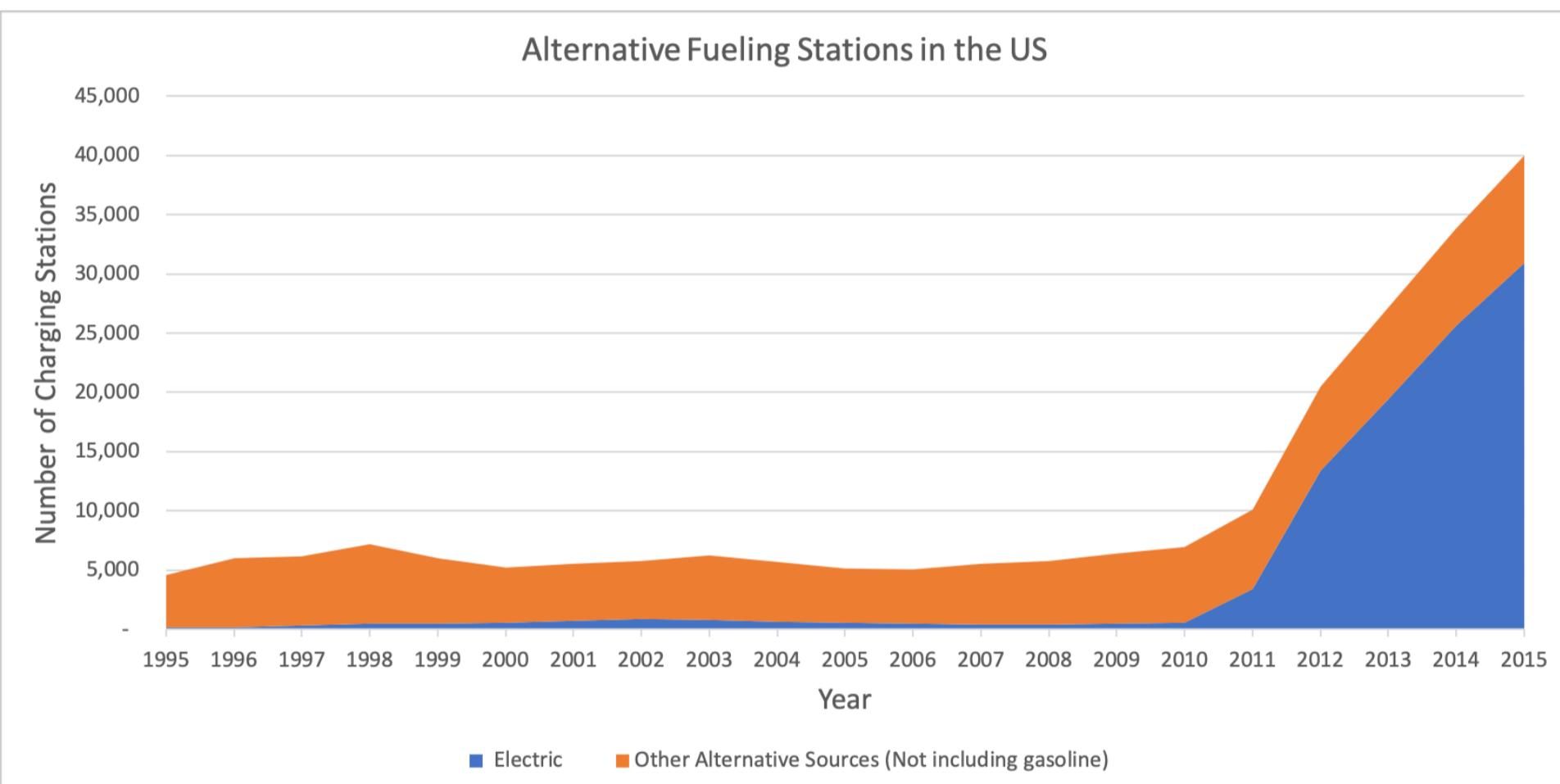
BY RILEY AND DANIEL





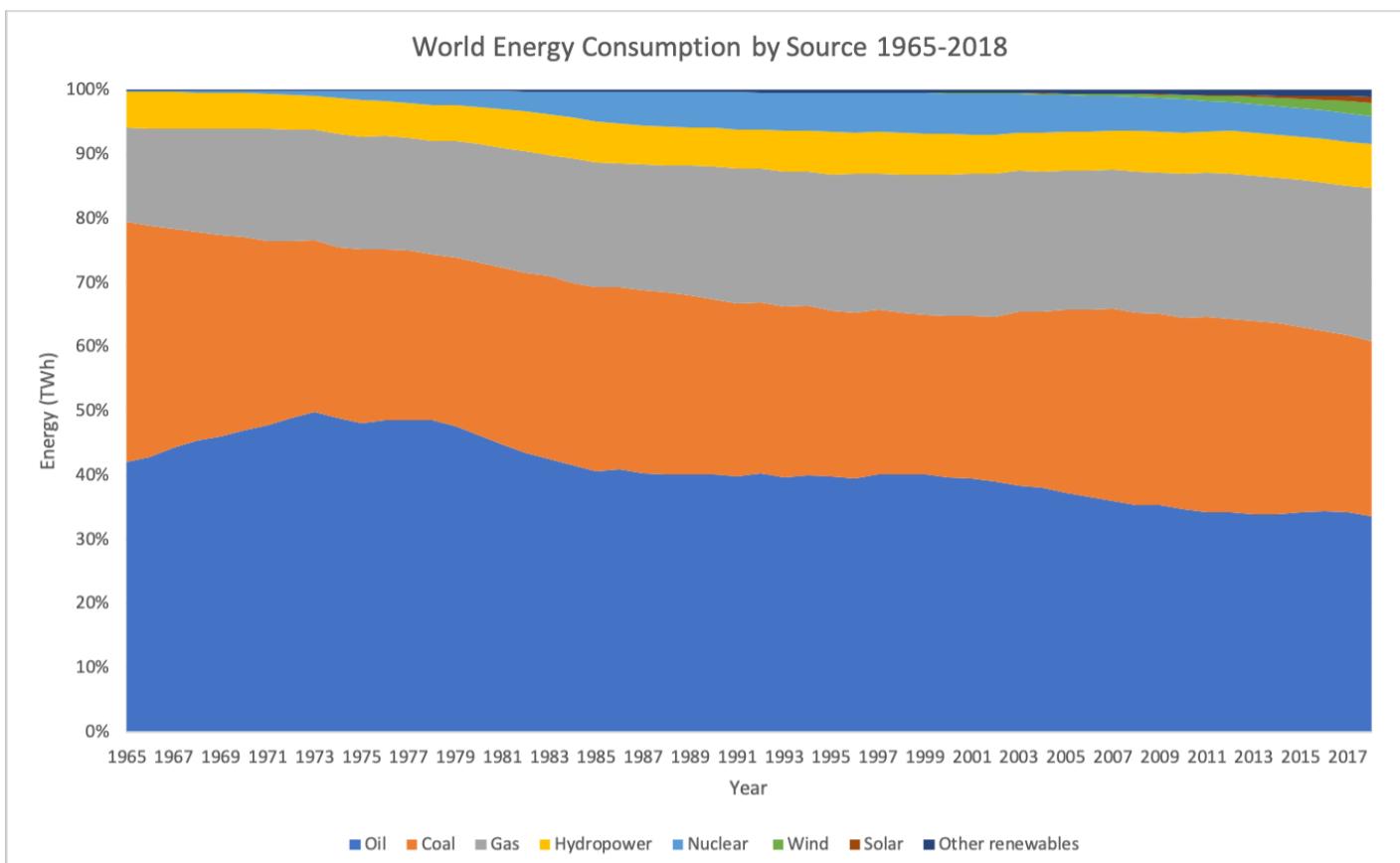
## INTRO

Electric cars are becoming more common every day, and public charging stations are quickly following in their wake. In 2016, the Office of Energy Efficiency and Renewable Energy wrote that “electric charging stations are the fastest growing type of alternative fueling station”. Most consumers are unaware that there are alternative energy sources besides electric, but when graphed, it is clear why electric charging stations are more well known.

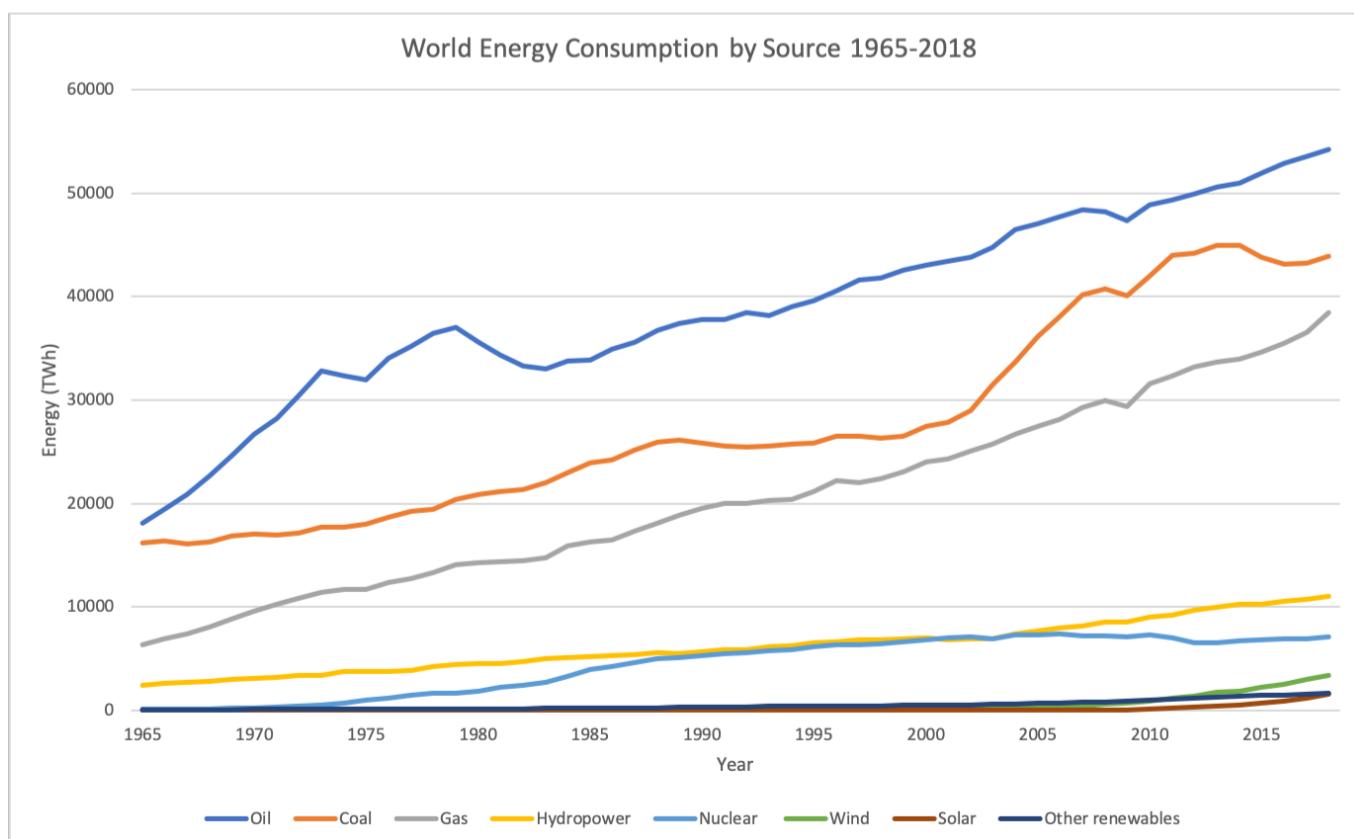


Although it is hard to find the exact number of gasoline stations to compare to electric charging stations, it is safe to say that electric stations will be the majority roughly when electric *cars* are the majority. In our report titled “By What Year will 51% of Annual Automobile Sales in the United States be Electric?”, we found that it will be in mid 2036. However, an increase in electric charging stations will not help climate change if the electricity was created by burning oil, coal, or gas. At that point, one is basically driving a gas car. Therefore, we need to look at when the majority of our electricity will be from a clean source, and how far after 2036 that will be.

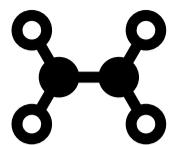
Here is a graph that shows our global energy consumption:



Note the extreme majority by oil, coal, and gas over the clean energy sources: hydropower, nuclear, wind, solar, and other sources that don't produce CO<sub>2</sub>. Solar is barely visible in the upper right hand corner. Although this is useful to understand just how little clean energy contributes to our total consumption, it is not helpful for making predictions. Instead, we reformatted the data to have terawatt hours on the left instead of percents and got this:

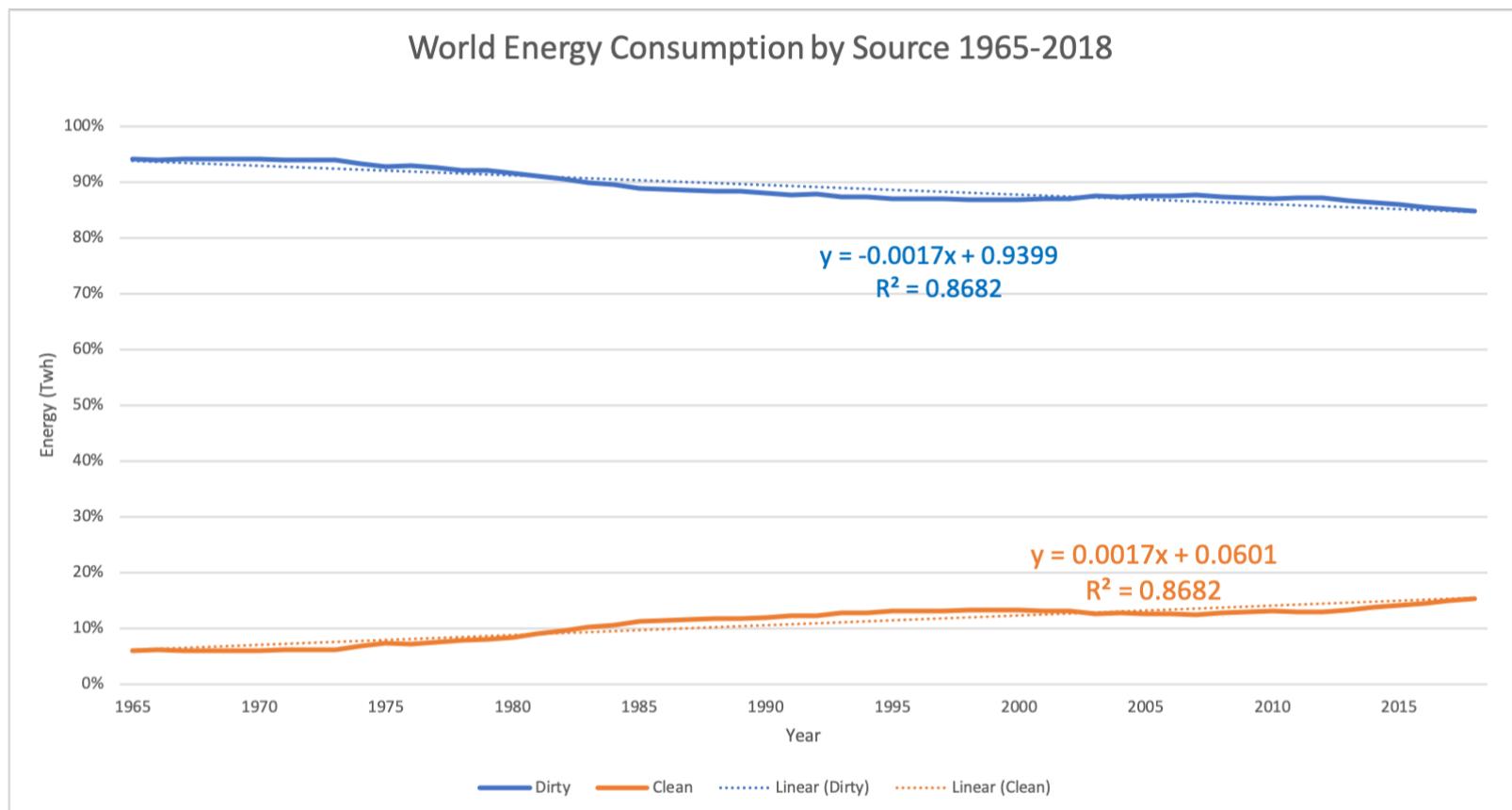


This graph shows that all of the energy sources have been increasing in use over the years, even if their percentage is decreasing.

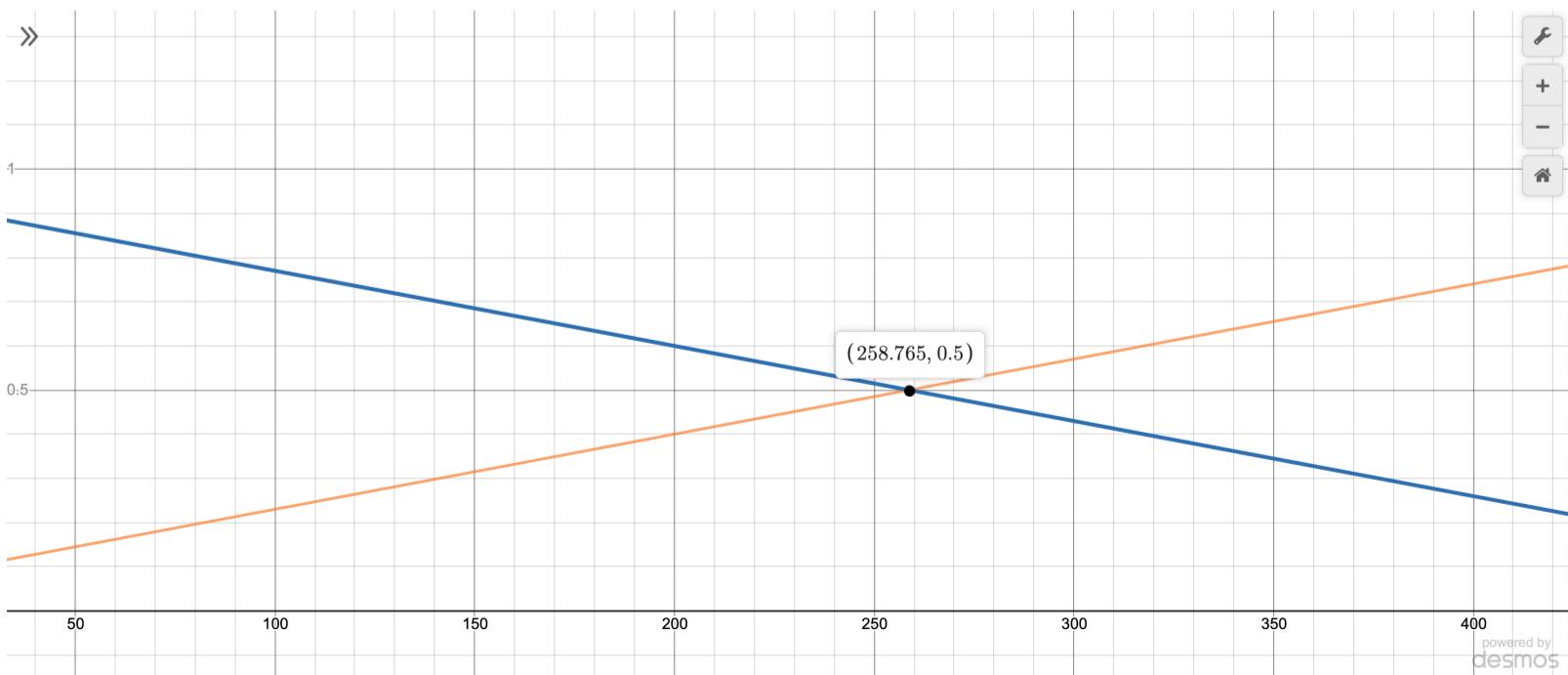


# PREDICTION

To find when clean energy will be the majority, we separated the clean and dirty, changed it to percentages, and added trend lines:



The point at which these two equations intersect is where clean energy is the majority.



This graph shows that in late 2223 most of our energy will come from clean sources. Although this may sound very far in the future, it is likely that clean energy will not need to be a complete majority for us to reverse climate change. For now, however, let's try to promote cleaner energy so that we do not have to wait until 2223.

#### Works Cited:

“Electric Charging Stations.” *Energy.gov*, [www.energy.gov/eere/vehicles/fact-920-april-11-2016-electric-charging-stations-are-fastest-growing-type-alternative](http://www.energy.gov/eere/vehicles/fact-920-april-11-2016-electric-charging-stations-are-fastest-growing-type-alternative).

Ritchie, Hannah, and Max Roser. “Energy.” *Our World in Data*, 28 Mar. 2014, [ourworldindata.org/energy](http://ourworldindata.org/energy).