

US hydrocarbon production

Hubbert in 1956 predicted that the US would peak out and decline in 50 years
In 1964 he made the same predictions for natural gas

What was wrong with Hubbert statistical methods is they didn't account for technology advancements of horizontal drilling and ultra- tight shale/ mud rock potential

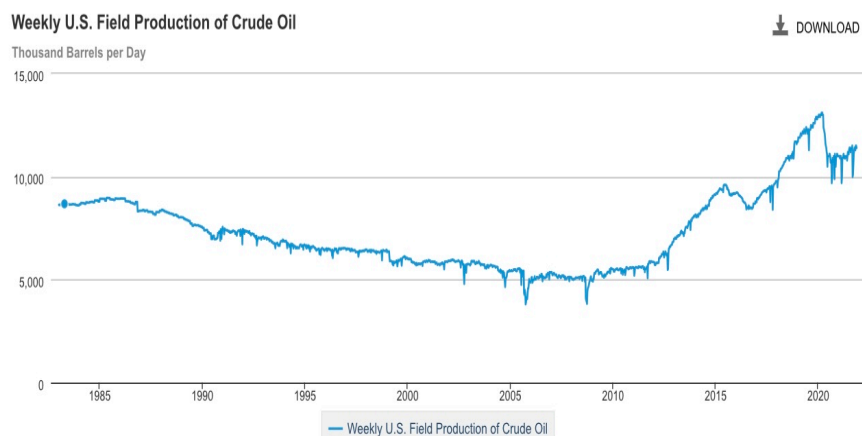
Oil peaked in 1970 after Prudhoe Bay came on- line via Alaskan pipeline

Arab oil crisis followed, and oil imports rose offsetting US decline

Jimmy Carter imposed windfall profits tax that basically took our all incentive to drill for oil domestically for ten years

Section 29 tax credits of 85 cents per mcf
We're put in place to help the us develop tight gas reservoirs in vertical wells

Horizontal drilling picked up in early 2000's
And by 2012 h wells footage drilled surpassed
Vertical and today over 90% of all weeks drilled in us are horizontal



Numbers as of October 2021:

11.4 million barrels crude oil per day

In January 2020 the US surpassed 13 million barrels a day to become the number one producer in the world and a petroleum net exporter

Refining capacity is 18.12 million barrels a day
Running in October at 15.7 million barrels a day

Ethanol is 1.03 million barrels a day

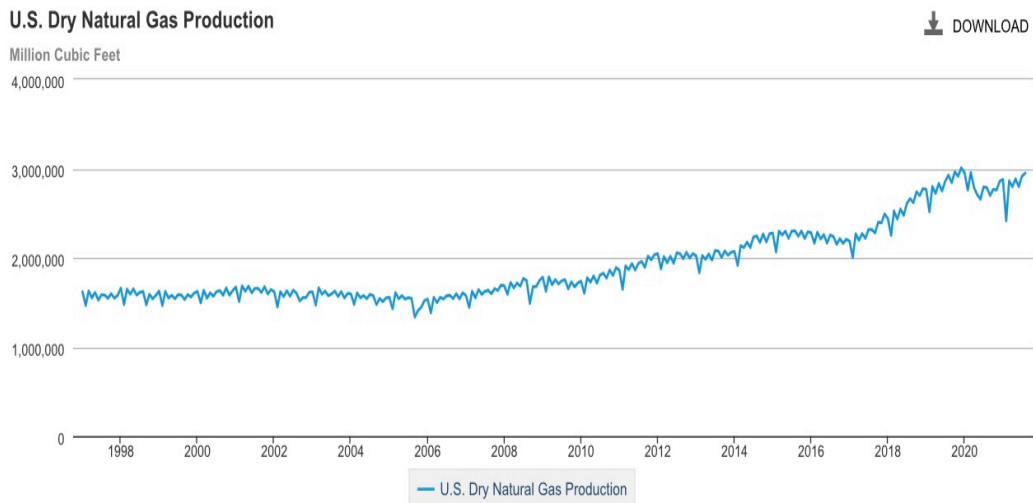
Us imports 8.325 million barrels a day

but exports 8.012 barrels a day of refined products
Netting imports if only 313,000 barrels a day

Of the exports of oil itself that is 2.5 million barrels per day of light crude from us shale plays that cannot be refined in the US

65% of the refining capacity in the us is for heavy sour oil like what comes from OPEC

Natural gas:

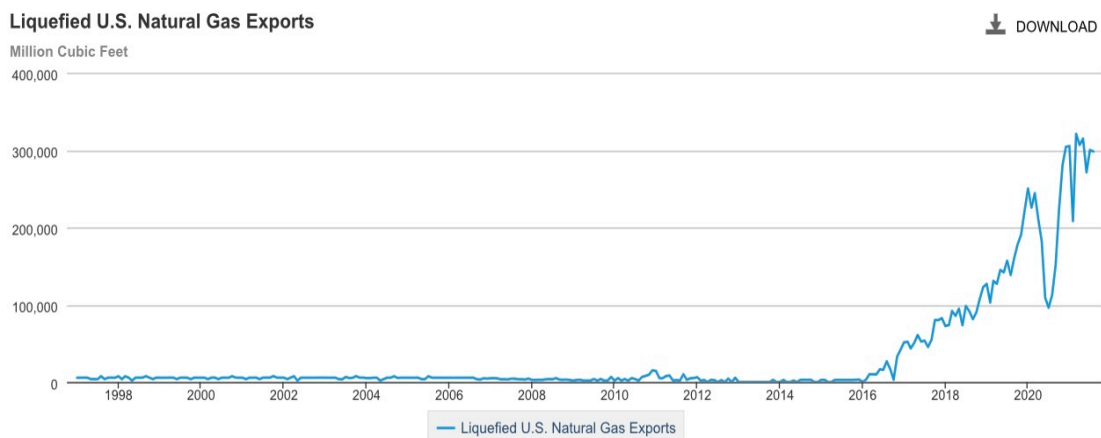


eia Source: U.S. Energy Information Administration

98 million cu feet per day US production

18.7 million cubic feet is exported via pipeline and LNG of which 6.5 million cubic feet daily to Mexico.

LNG exports have grown in five year to be 10 million cubic feet per day.



eia Source: U.S. Energy Information Administration

Chart Tools

