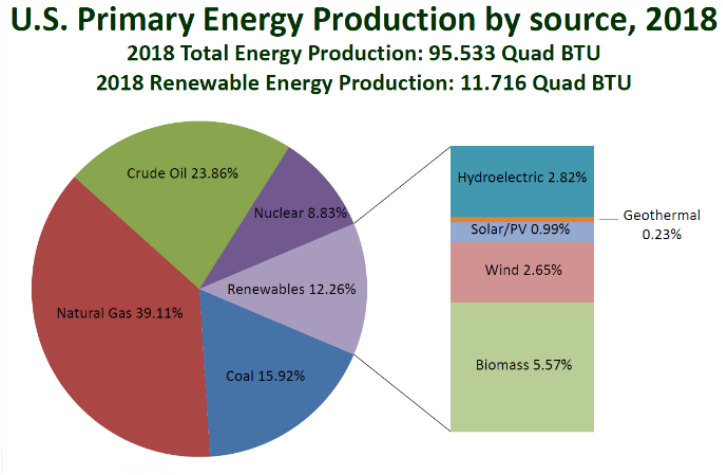
EIA Data Underscores Need for Commitment to Secure, Clean Energy Future

For fifteen years, the Solutions from the Land's (SfL) renewable energy platform, the 25x'25 Alliance, has compiled and compared year-to-year total and renewable energy production and consumption data to gauge progress to the 25x'25 Goal: By 2025, America's farms, forests and ranches will provide 25 percent of the total energy consumed in the United States, while continuing to produce safe, abundant, and affordable feed, food, fiber and energy.

According to the most recent Monthly Energy Review (MER) issued by the DOE's Energy Information Administration (EIA), both renewable energy production and consumption grew over 2018. But due to a relatively small increase in the amount of energy consumed last year, the percentage of renewables as part of that mix increased only slightly.



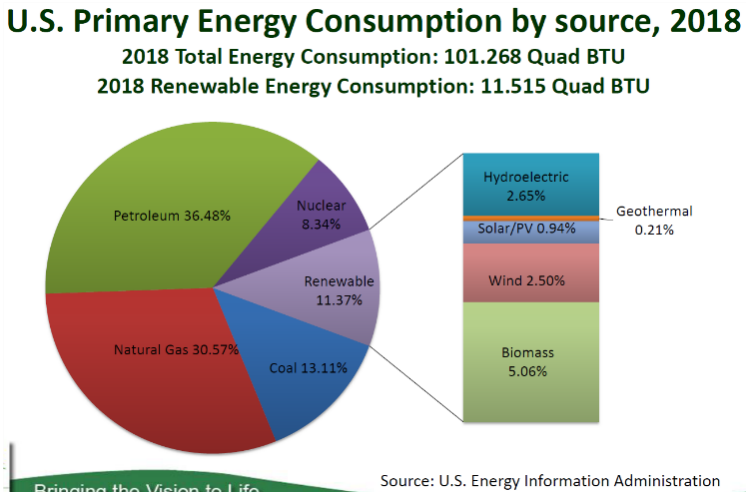
Total energy production in the United States increased by 7.275 quadrillion BTUs (quads) to 95.533 quads, a jump of more than 8 percent. Fossil fuel production was led by net increases in natural gas (3.984 quads) and crude oil (3.267 quads) and accounted for most of the production growth. (Coal, however, saw a slight decrease in production over the previous year.)

All renewable energy resources saw an uptick in production, except for hydroelectric power. Total renewable energy production clocked in last year at 11.716 Quads, or 12.26 percent of total energy production, which is actually a slight decrease from 2017's 12.71 percent.

Even though the production of renewable energy increased, it did not increase as much as fossil fuel production, thus contributing to an overall percentage decline of renewable energy production as compared to total energy production.

The year-over-year increase in total fossil fuel production was 9.89 percent (6.835 quads), while total renewable energy production only increased by 3.7 percent (0.418 quads).

On the consumption side, a total of 101.268 quads was consumed in the United States last year, an increase of 3.461 quads over 2017. Consumption of most energy



sources (natural gas, petroleum, nuclear, geothermal, solar, wind and biomass) increased, except for coal and hydroelectric power. This is the first time U.S. energy consumption exceeded 100 quads of energy since 2007. Total fossil fuel energy consumption increased to 81.161 Quads, a hike of 3.144 quads (4.03 percent) over 2017 levels.

If fossil energy production increased by 6.835 quads and fossil energy consumption only increased by 3.144 quads, it might be asked: Where did the remaining energy go? The difference went to energy exports. The United States has nearly doubled its energy exports over the past five years, with increases coming in nearly every energy source.

Much like fossil fuels, nearly all renewable energy resources (except hydroelectric power) experienced an increase in consumption in 2018, coming in at 11.515 quads, a hike of 3.01 percent over the 11.179 quads recorded in 2017. Again, renewable energy consumption increased, but not at the rate or volume that fossil fuel energy consumption increased.

Because total energy consumption only grew at a rate of 3.54 percent, renewable energy consumption as a percentage of total energy consumption ticked up 0.1 percent, to 11.37 percent. This represents a significant gap from our goal of 25% renewable energy consumption by 2025.

Given that the total renewable energy consumption (11.515 quads) was less than total renewable energy production (11.716 quads) in 2018, it might be asked: Why the 0.201 quad difference? The United States is now a net exporter of biomass-based energy when accounting for the export of biofuels (ethanol and/or biodiesel) and compressed wood pellets.

If the United States is producing 95.533 quads of energy and consuming 101.268 quads of energy, where is the net difference in energy being sourced from? While the nation has dramatically increased energy exports over the years, the United States remains a net importer of energy – especially of crude oil – to satisfy our domestic energy needs.

The 2018 numbers drive home the need for the right local, state and federal policies and investments that can enable the country to close the energy gap with renewable energy produced domestically from sustainable feedstocks and renewable resources, mostly from our rural areas.

Stakeholders are urged to ramp up their messaging to policy makers by reinvigorating the national 25x'25 goal and calling on them to: make energy efficiency the option of first choice in energy decisions; increase the production of renewable energy resources; ensure renewable energy has unfettered access to markets; increase consumer access to renewable energy resources; and, expand public and private investments in renewable energy R&D to increase efficiencies and further reduce production costs.

When the 25x'25 Goal was introduced fifteen years ago, it was seen as the answer to a national energy strategy that lacked vision. At that time, the 25x'25 Goal was the sort of long-term vision the country needed. To achieve our goal, policy makers and the consuming public must strengthen their commitment to a secure and clean energy future.