



THE FUTURE OF **ENERGY**

Interview by Noah R. Young

INTRODUCTION

The future of energy - It's something we hear often, but few understand what's really on the horizon. Questions arise all the time about what will happen, when it will happen, and how impactful it will be. Fossil fuels were present almost 300 million years ago; it was not until the 1800's that coal was first used to power homes and factories, paving the way for a new generation of electricity and manufacturing.

Recently, major corporations around the world have joined The Climate Pledge - to have net-zero carbon emissions by 2040. Participating industry leaders include IBM, Amazon, and GMC. While carbon control is important, it is also imperative that affected stakeholders remain aware of this dynamic and what its implications are for the fossil fuel industry.

This series, [The Future of Energy](#), will help answer those questions with the help of Mansfield executives, market leaders, and in-depth analysis. With this series, Mansfield will bridge the gap between curiosity and fact related to the landscape of the current fossil fuel industry and a sustainable future. During this first edition, we will explore this idea with an interview of Andy Milton, Mansfield's Sr. Vice President of Supply and Distribution.



MEET ANDY MILTON

EDITION 1
JULY 2021



Andy Milton **Sr. Vice President, Supply & Distribution**

Andy Milton has been with the Mansfield team since 2005. His deep experience spans all aspects of the fuel supply chain from truck dispatch, analytics and index pricing to hedging and bulk purchasing. As SVP of Supply & Distribution, Andy is responsible for all fuel procurement along with overseeing daily fuel purchasing optimization. Prior to joining Mansfield, Andy was with RaceTrac Petroleum for six years where he managed fuel procurement for RaceTrac and RaceWay retail stations. Andy holds a Bachelor's degree in Sports Management with a minor in Business from Georgia Southern University.

INTERVIEW Q&A

"There's no doubt that total energy consumption will increase globally this century. Focusing on oil, do you think oil demand will peak in the next 50 years? If so, when?"

Yes, it will peak. As far as when, there are two areas to look at first. There is a big difference in demand for oil in the United States and demand in other countries.

The Paris Climate Accord is important since countries are looking to be net-zero by 2050-2060. Even with these countries looking to transition away from crude oil, there will still be demand for secondary petroleum products. Further, there will still be cars that rely on traditional gasoline and traditional products to some degree. Even when global oil peaks, it's not going away entirely.

Some argue the only way to control emissions is to cease drilling entirely. Is the "leave it in the ground" approach practical?

I think this is an exciting challenge. People desire to be green, but when it comes to making personal sacrifices in their life, it becomes a lot less appealing. For example, today's average commute is still long, yet you do not see people jumping on busses for their commutes. I like the challenge to curb emissions and increase green lifestyles, but only to the degree that it's reasonable. The easier-to-reach places (i.e. a physical geographic region but also what part in the chain), become the norm, and maybe the harder-to-reach places stay in the ground until the price, the demand, or the supply warrant extracting it.

INTERVIEW Q&A

What do fossil fuels look like for the next 10 years from a supply and demand perspective?

Very similar to what it is today. There will be a diversity of demand for new products and a continued variety of products supplied in the marketplace. For instance, we are working with a company that may be producing renewable gasoline or low carbon gasoline in the near future - that's not even in the marketplace today. The average consumer has no idea that could be coming in a few years. Imagine gasoline that uses the same infrastructure, looks, smells, and acts the same ways as gasoline in your car, yet has a significantly lower carbon footprint than the gasoline used today.



I would also expect a continued push towards renewable diesel. There is a feedstock source problem that is going to limit the upside; nonetheless the quality of the product and the clean burning properties will certainly help growth in renewable diesel. Again, like the gasoline example I mentioned, this product uses the same infrastructure today, just burns cleaner. For other products, there's a mountain of a problem to overcome—infrastructure and reliability. Don't underestimate the challenge in converting vehicles and infrastructure, yet keeping the same level of supply reliability that we have all come to expect.

INTERVIEW Q&A

What is the role of renewable energy in the global energy transformation?

I think it's the key. There is a big limiter, though. For alternative fuel sources, there is the challenge of infrastructure and reliability. As I noted earlier, this same challenge exists for options like electricity. The electric grid is just not ready for the many different things that society wants to implement, such as more wind energy, solar energy, and battery power.

When it comes to batteries in general, there have to be many more advancements in how batteries are created; and more importantly, how batteries are recycled and their ultimate lifecycle. Many people love their electric cars but have no idea how the battery is made, what precious metals were dug up out of the ground for raw materials, the awful environmental aspect of that, and how the batteries are ultimately disposed of at the end of their life cycle. If we don't develop a good recycling program, which I believe will come into play, then we are essentially greenwashing the impact on the environmental situation by going electric.



INTERVIEW Q&A

Do you think that we can realistically move away from fossil fuels?

Globally—no, not anywhere near my lifetime. I do think that there will be a continued diversity of energy sources, however. Hydro and nuclear energy probably make the most sense, but who wants a nuclear facility in their backyard? Even though it is ironically the most efficient and scalable energy source. Essentially, a continued diversity of energy sources will arise in the future but will not completely replace fossil fuels.

What primary energy source do you see the world using come 2050 when many large corporations have pledged to become completely green?

Electricity is going to have a greater impact for sure. However, because of investments it may vary greatly by country. It's the most flexible because you can take any of the energy sources (i.e. solar, wind, hydro) and convert them into one fuel - electricity - that can go into any car, home, or business. The energy sources can be vast while also being condensed for the average energy consumer. However, to have the environmental impact we all would want, then we need some serious improvements in electricity storage, transportation, and distribution.



MEET THE EDITOR

EDITION 1
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Noah Young **Market Intelligence Analyst**

Noah joined Mansfield's Corporate Marketing team as a Market Intelligence Analyst, monitoring daily energy market trends, editing FuelsNews, and publishing thought leadership analyses. Noah has previously worked with Mansfield's Supply Department on data analysis and supply optimization. Noah holds a degree in Marketing from Baylor University and is currently pursuing his MBA at Georgia State University.