these markets remains one of Growth Energy's top priorities.

Thanks to our pioneering work with Prime the Pump, the relationships we have built over the last decade with an unmatched network of retail partners has given us a powerful tool to do just that.

In November, Casey's stepped up to the plate in North America to encourage policies that support higher ethanol blends. A leading E15 retailer, Casey's dispatched its vice president of fuels, Nathaniel Doddridge, to join us for a presentation to approximately 170 Mexican retailers and government officials at a workshop sponsored by the Mexican Retailer Service Station Association (AMPES). During the event, Doddridge helped paint a picture for retailers south of the border, which are eager to meet consumer demand for clean, affordable fuelling options.

A nationwide transition to E10 in China, India, Canada, Mexico, Japan, and Indonesia would create a combined potential of 7.6 billion gallons of new ethanol demand. Mexico alone could offer a 1.2-billion-gallon growth opportunity at an E10 blend.

In Canada, the bar is climbing higher, with E15. The decision is a win for US farmers and biofuel producers alike. But we recognise that trade negotiations and regulatory victories are just the first step. Bringing biofuels into new markets means establishing new partners in the retail community who understand the value proposition of ethanol blends, which help attract customers, reduce prices, and protect human health from air pollution. That is why we are grateful to Casey's and our other retail champions for working with Growth Energy to educate new leaders and build confidence in the market potential of renewable fuels."

Looking ahead

By Dr Jan Henke, director of ISCC

"This year, the recognition of International Sustainability and Carbon Certification (ISCC) under RED II; further development of ISCC PLUS and ISCC for aviation fuels and new regulatory developments will dominate ISCC activities.

Recognition of ISCC under the REDII in summer is key for the certification, it is system users and stakeholders. ISCC has already handed in its relevant documents to the European Commission.

However, important delegated acts by the European Commission on co-processing, renewable fuels of non-biological origin and recycled carbon fuels as well as further guidance on low ILUC biofuels are still in the pipeline.

Once published they may require ISCC to implement some updates and specifications. ISCC is already analysing these topics and is involved in different pilot projects. It is always the aim to develop practical and secure certification approaches for all areas and to be well-prepared to cover these new markets.

ISCC will continue to concentrate on providing support to existing markets and on new market developments.

The ISCC PLUS system for the circular economy and bioeconomy has seen a growth rate of 85% in 2020 which is expected to continue in the year ahead.

Companies across the entire supply chain from points of origin to global brand owners are increasingly using the ISCC PLUS system.

Developing the market place for renewable fuels

Pat Gruber, CEO, Gevo

"We appear to be in the midst of a great 'awakening'. We can do something about GHGs, reduce them, and not break the bank while doing it.

The great issue is that roughly 73% of GHG emissions come from energy. It turns out that roughly 16% are due to transportation.

The emissions come from burning, one way or another, coal, natural gas and oil. Add to this the estimates that there are about one billion people in the world without electricity. We will continue, on a macro basis, to need more and more energy, but we had better make it green. We need renewable energy, and it needs to be readily accessible, easily adopted, and we need it all sooner rather than later. The good news is that technology and the thinking about 'what is sustainable' has improved, as well as how to measure it and track it.

The renewable energy is a mix of photosynthetic, wind, biogas, renewable natural gas, electricity from biomass, and hydrogen. The liquids that Gevo makes come from recycled carbon, yes, CO_2 from the atmosphere, leveraging Mother Nature's outstanding process of photosynthesis.

The liquids are the hydrocarbons for gasoline and jet fuel – liquid energy – and are designed to be renewable drop-in replacements that require no change to engines, no change to infrastructure, and are easy for consumers to adopt.

The paradigms are shifting. We are seeing an awakening that modern agriculture techniques such as precision agriculture, tillage practices that preserve and build soil carbon and nutrients, and seeds that improve yield all lead to a system of generating food and raw material to turn into liquid energy. Protein is valuable.

With our technology we generate more protein than liquids for petrol and jet fuel on a tonnage basis. The protein goes to the food chain – low-GHG-footprint protein.

That means lower GHG-footprint meat. What about the manure, you might wonder? It turns out that manure is a great feedstock for generating biogas (for boilers) and RNG for heating buildings, or compressing for use in vehicles. The process to make biogas also produces fertiliser.

That nitrogen, phosphorus, and potassium from the grasses and grains that animals eat can be captured, concentrated, and recycled back to fields. The farmers benefit since they don't need to buy as much synthetic fertiliser. Low-GHG meat and dairy are creating a new paradigm and it's good for everyone.

Farmers and some