Alternative Energy Initiatives

Energy Transfer's Alternative Energy Group actively pursues pathways to multi-source energy projects that complement our extensive midstream assets and strives to help reduce our environmental footprint in a manner that makes economic sense. Various opportunities include carbon capture and sequestration (CCS) projects, infrastructure to support hydrogen and ammonia projects, and renewable fuels. We also continue to look at using our land positions for renewable energy projects and forestry carbon credit projects in partnership with third-party developers.

Carbon Capture and Sequestration

We continue to pursue carbon capture opportunities. We believe our strategically positioned franchise will allow us to participate in projects to provide carbon dioxide pipeline solutions to several CCS projects being developed by third parties. We are also pursuing CCS projects related to our assets, including the capture of carbon dioxide from processing and treating plants for permanent sequestration, or for use in enhanced oil recovery.

LA

In 2022, we began working with CapturePoint Solutions to jointly develop a CCS hub in northern Louisiana. It has the potential to be one of the largest onshore deep underground carbon storage centers in the U.S., with the capacity to permanently secure millions of tons of carbon dioxide annually that would have otherwise been emitted into the atmosphere. The proposed project includes the construction of a carbon dioxide gathering system to transport carbon emissions from natural gas producers in northern Louisiana to a carbon sequestration facility capable of permanently storing carbon dioxide in a secure geological formation.

LA

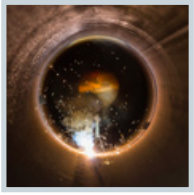
We also executed a Letter of Intent with Oxy Low Carbon Development (Oxy), a subsidiary of Occidental Petroleum, to collaborate on developing a CCS solution for the greater Lake Charles industrial region in Louisiana. The project would include the construction of a carbon dioxide pipeline to connect customers to Oxy's sequestration site in Allen Parish, Louisiana.

TX

We are developing a carbon dioxide pipeline solution for the Houston to Port Arthur/ Beaumont industrial corridor. With multiple sources of carbon dioxide in and around these regions and high-quality sequestration sites within this corridor, we're working with several customers to introduce an open access carbon dioxide pipeline solution.

TX

We are pursuing several projects in South and West Texas to utilize the carbon dioxide captured from our natural gas treating facilities for permanent sequestration, enhanced oil recovery projects or e-fuel synthesis.



Hydrogen and Ammonia

Clean hydrogen is emerging as a component of decarbonization efforts in Europe and Asia. As a derivative of hydrogen, ammonia is both a carrier for hydrogen and an energy vector for co-burning in coal-fired power plants. As the sources and uses for hydrogen and its derivatives such as ammonia expand, there is a developing need for open access midstream infrastructure to facilitate the growth of this sector.

The Beaumont/Port Arthur areas of Texas have an existing hydrogen ecosystem that is growing to both produce and consume clean hydrogen. To support this expanding hydrogen ecosystem, we conducted a pre-FEED study in 2022 to determine viability and cost to develop an underground hydrogen storage cavern at our Spindletop salt dome storage cavern facility and a hydrogen pipeline system connecting the storage cavern to regional supply and demand nodes. We have been pleased with customer interest in our efforts to develop this hydrogen infrastructure.

Our land holdings at Nederland and Lake Charles, with deep water docks and access to international waters, are well suited for developers of clean ammonia projects. We are working with several global organizations on developing clean ammonia projects either at or around our properties at Nederland and Lake Charles.

Renewable Natural Gas

Energy Transfer is growing its Renewable Natural Gas (RNG) business with an increasing number of RNG interconnects. Organic waste from dairy farms, animal residuals, landfills, or wastewater treatment plants can be repurposed into a clean, renewable fuel source called biogas. Biogas can be conditioned or upgraded to pipeline-quality natural gas, becoming RNG. Through our extensive gas system, we are able to safely and reliably transport RNG. At the end of 2022, we had eight RNG plants/interconnects in place, transporting over 5 billion cubic feet of product.

Renewable Natural Gas (RNG): **8 plants/ interconnects**

RNG Transportation: **5 billion cubic feet**

Cordelio/Tenaska Renewable Energy Development

We continue to evaluate the repurposing of acreage within our asset footprint. As a part of that effort in 2022, we leased 14,000 acres for Tenaska and Cordelio Power's proposed renewable energy park in northern Kentucky.

Powering our Assets

Powering our assets through renewable energy sources, primarily solar and wind, is an established part of our operations where it is economically viable to do so. Since 2019, we have entered into dedicated solar contracts to purchase 108 megawatts of solar power to support the operations of our assets. We also operate approximately 32,500 solar panel-powered metering stations.

Powering Our Assets: **20% comes from solar and wind**