

# Platts Global Integrated Energy Model

Strategic planning for a world in transition



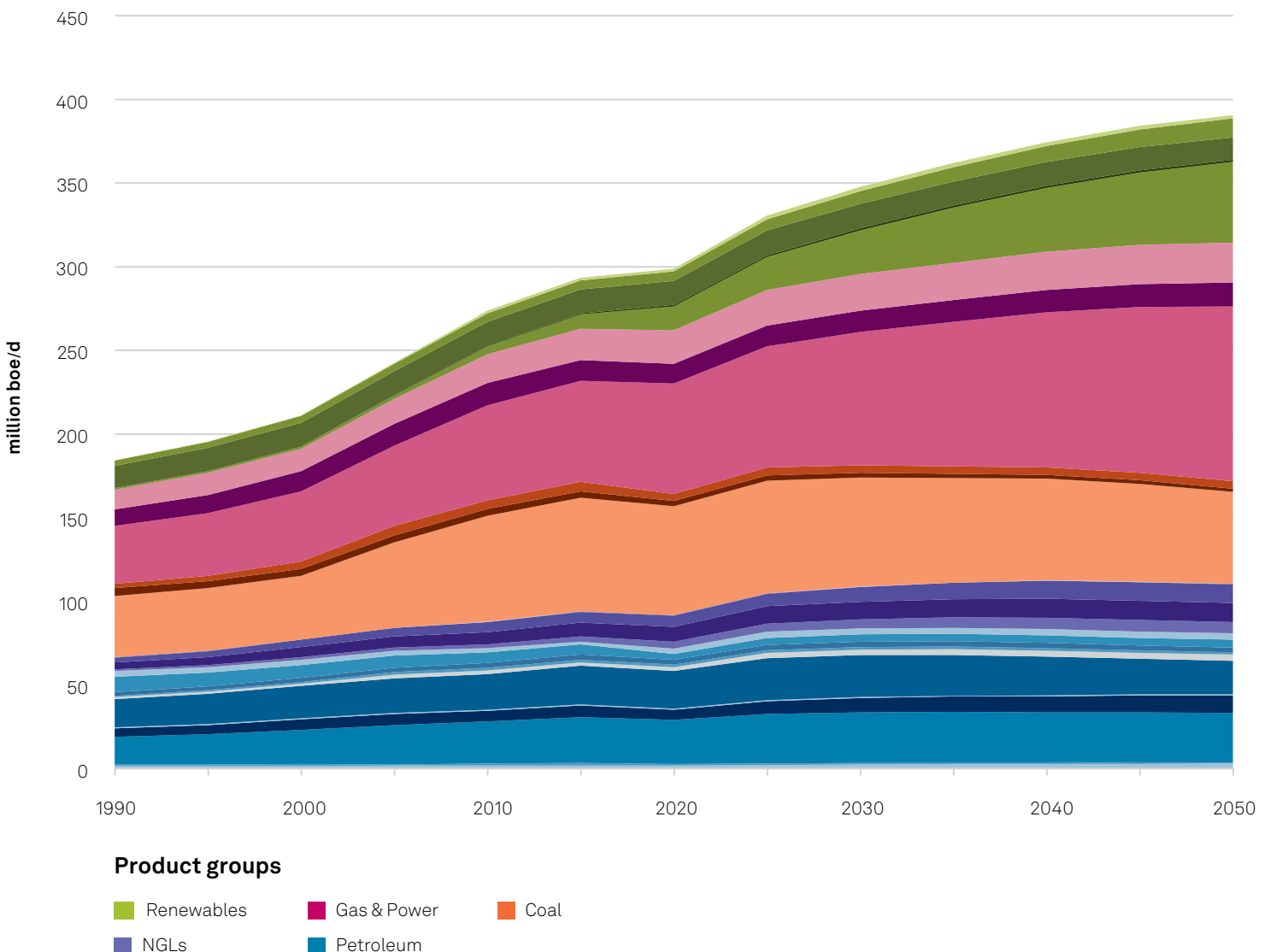
A comprehensive energy transition modeling tool which allows users to visualize and filter supply and demand for various sources of energy on a global and country level through the year 2050.

Over the past 30 years, the global energy system has experienced a profound transformation: total primary energy supply has increased by 60%, new fuels have entered the mix, and emerging technologies have changed the way energy is used.

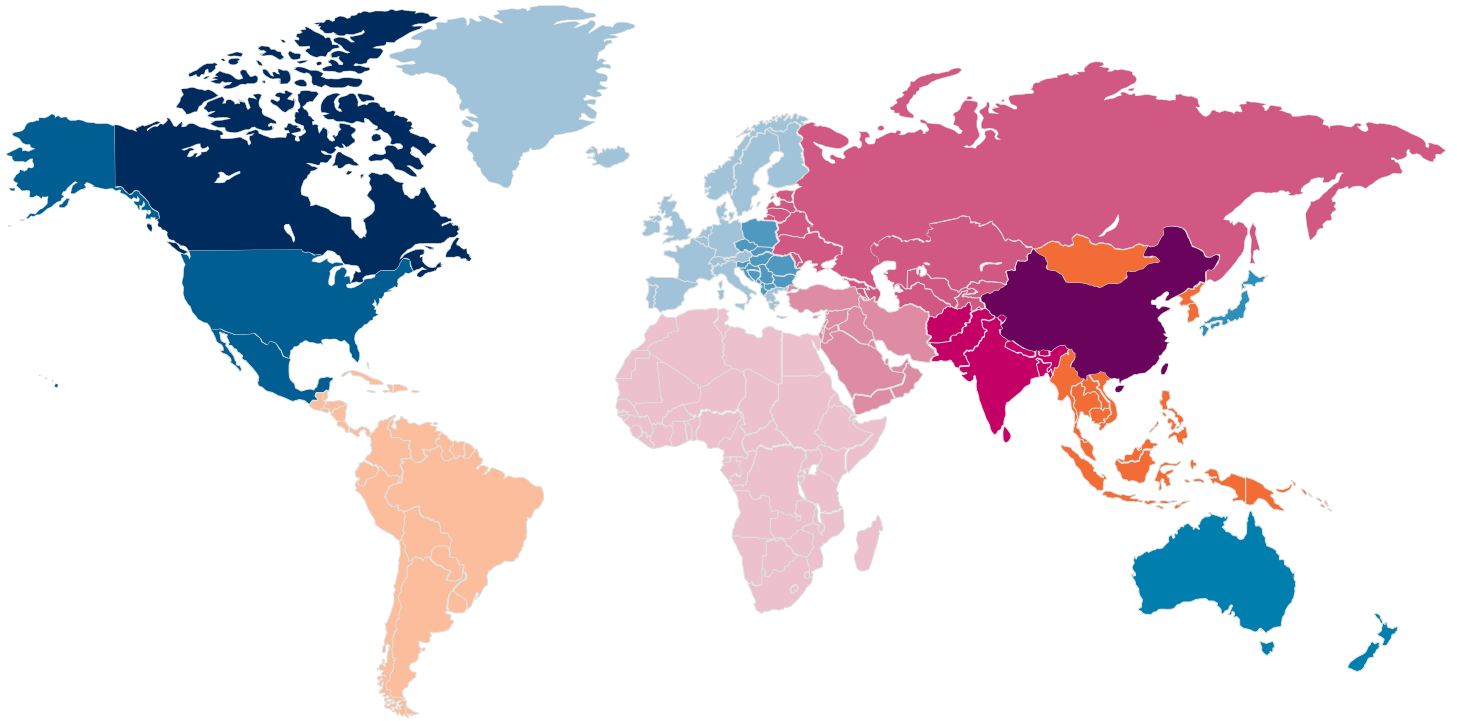
The coming 30 years will also be shaped by new challenges, uncertainties, and shifting regional dynamics. To understand the energy transition, the Global Integrated Energy Model (GIEM) provides users with a practical and customizable tool to study the evolution of the global energy system, with data spanning 143 countries, 11 end-use sectors, and 30 individual energy carriers from 1990 to 2050. Containing all components of integrated energy balances, the GIEM is used to compute long-term energy prices under various scenarios.

This is an ideal tool for energy industry leaders, strategic planners, and investors across a range of commodities (oil, gas & power, renewables, and others).

## Total primary energy supply, 1990-2050

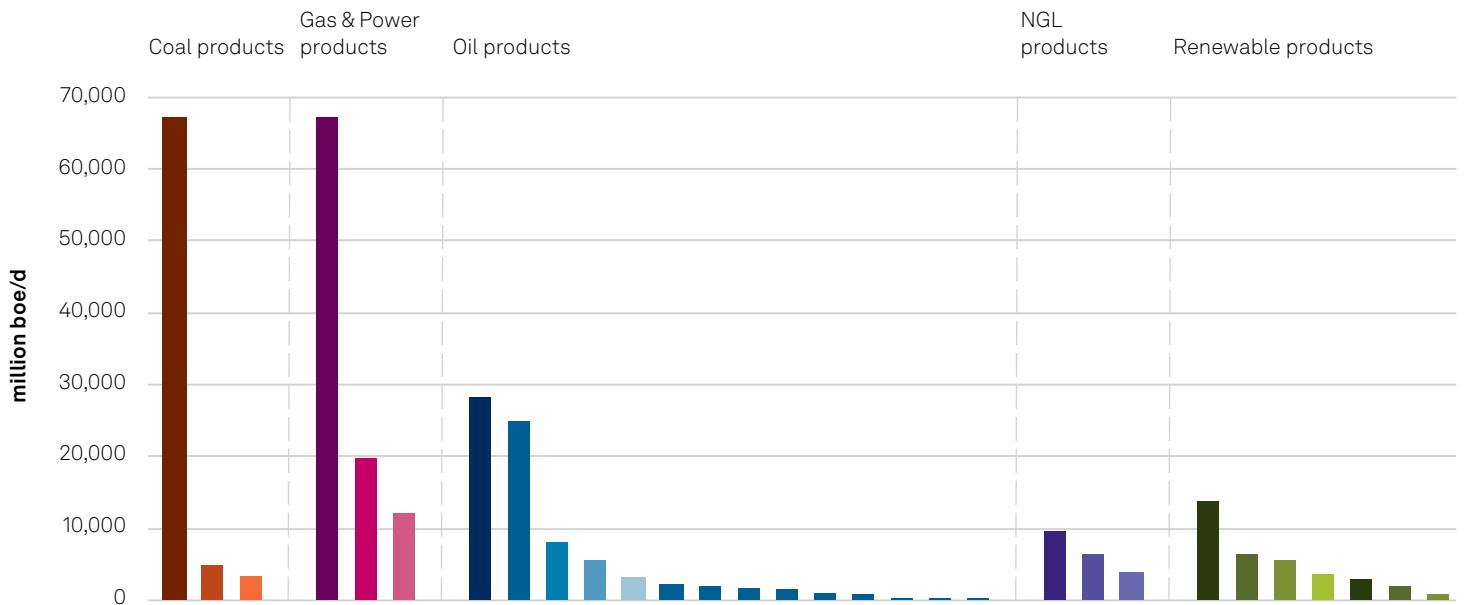


## Coverage of 143 countries across 13 regional groupings



## Data Modeling for 30 different fuel types across various product groupings

2019 Global energy demand by fuel



# Gain a comprehensive view of energy demand by end-use

Historical data and forecasted energy demand are available at the sector level across 10 end-use sectors within each country.

## Transportation



Passenger cars



Commercial transport



Marine bunkers



Aviation

## Industrial Activity



Steel, aluminum, cement, etc.



Energy industry own use



Distribution of energy resources

## Other Stationary Use



Power generation



Buildings



Hydrogen generation

## Non-Energy

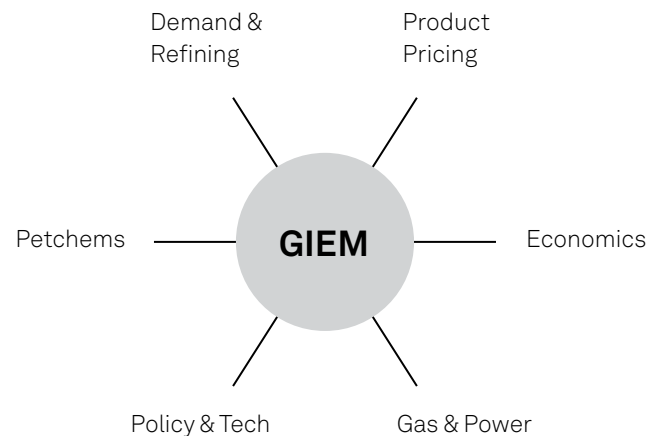


Chemicals, fertilizer, and other

## Subscribers to the GIEM have access to a full range of integrated energy analytics

Long-term fuel supply forecasts are made available to GIEM subscribers on a monthly basis, with balances determined via an integrated process across Research and Insights by Commodity Insights, reflecting the latest offerings in terms of:

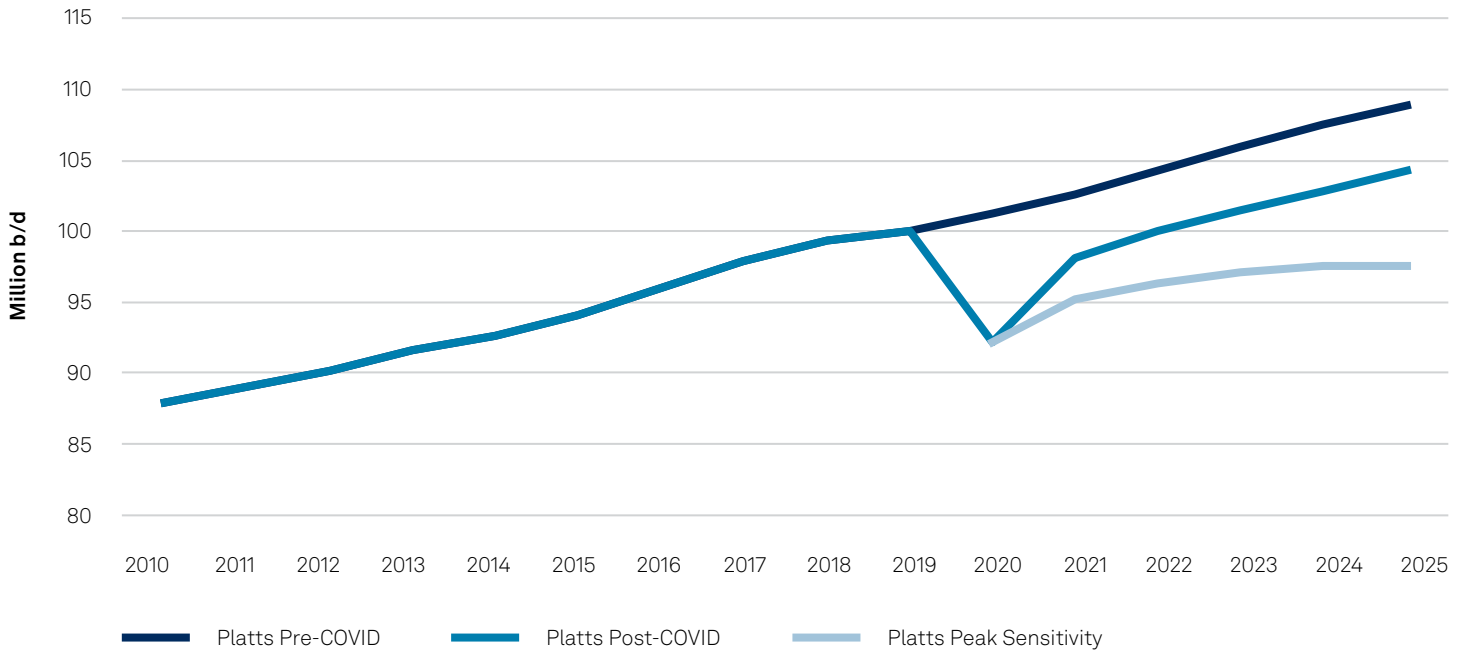
- Global Oil
- Global NGLs and petrochemicals
- Global Power
- Global LNG
- Global Economics
- Energy prices
- Policy and technology



# How do our clients use GIEM?

## Develop and adjust medium-to-long term Outlooks across various commodities

What is the likely shape of oil demand over the medium-term?



\* Projections are shown net of bioenergy

## Benchmark the energy transition by assessing key signposts



Market share of electric vehicles



Installed renewable capacity



Uptake of biofuels

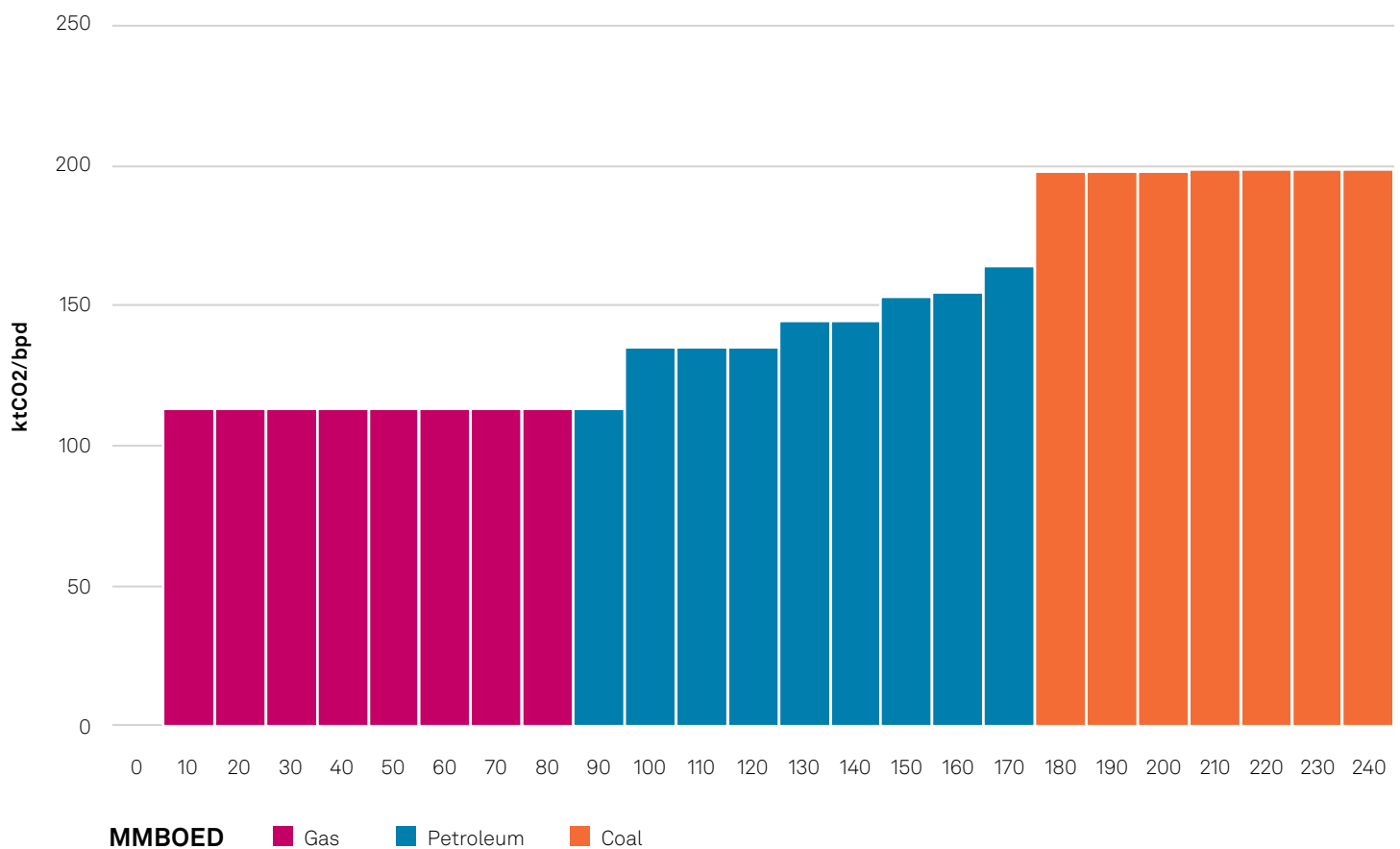


Share of recycled plastic in polymer demand



Committed energy transition spending

## Assess the carbon footprint at the end-user level across various fuel types in a given country



# Before we reach Net-Zero, how do we meet the 2-degree climate target?

Understand the energy demand, supply, and emissions reductions needed to take place to keep warming under 2 degrees through 2050.

## The Climate Challenge:

Under the 2015 Paris Agreement, nearly 200 countries agreed to limit global warming to no more than 2 degrees Celsius by 2100, and to aim for a no more than 1.5 degrees Celsius increase.

The 2-degree Outlook is widely seen as the global community's accepted limitation of temperature growth to avoid significant and potentially catastrophic changes to the planet.

Companies and countries around the world have acknowledged that action is needed to combat climate change.

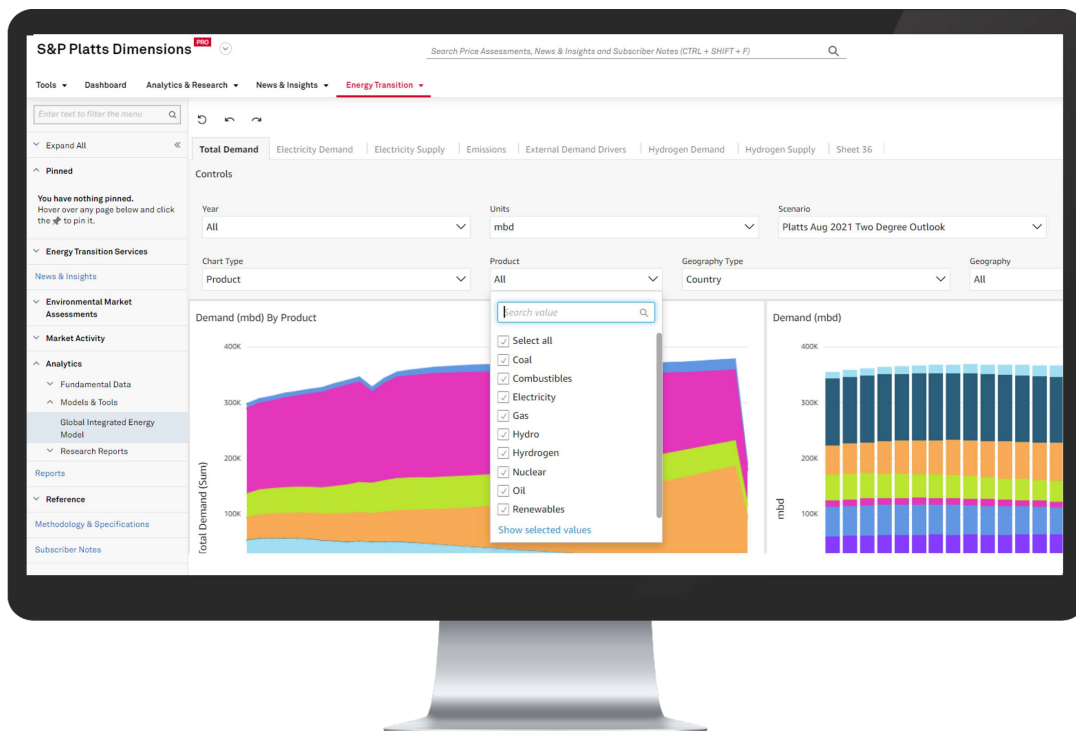
## Your 2°C outlook:

The two degree Outlook is a selection within the Global Integrated Energy Model that offers a balanced energy demand outlook constrained by the emissions reductions requirements to limit global warming to 2 degrees Celsius through 2050.

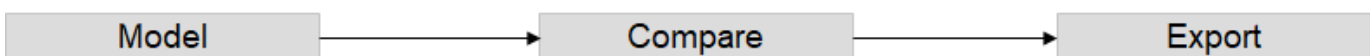
This interactive Outlook tool allows users to not only view our demand forecasts required to keep temperatures from exceeding two degrees of warming through 2050, but also allows users to compare the data with our most likely case as created by our analysts.

The delta between these two scenarios can be used to see how far countries are from achieving two-degree climate goals.

**SPCI Research and Insights has the extensive modelling capabilities and advanced UX for users to easily run custom scenarios anytime, anywhere.**



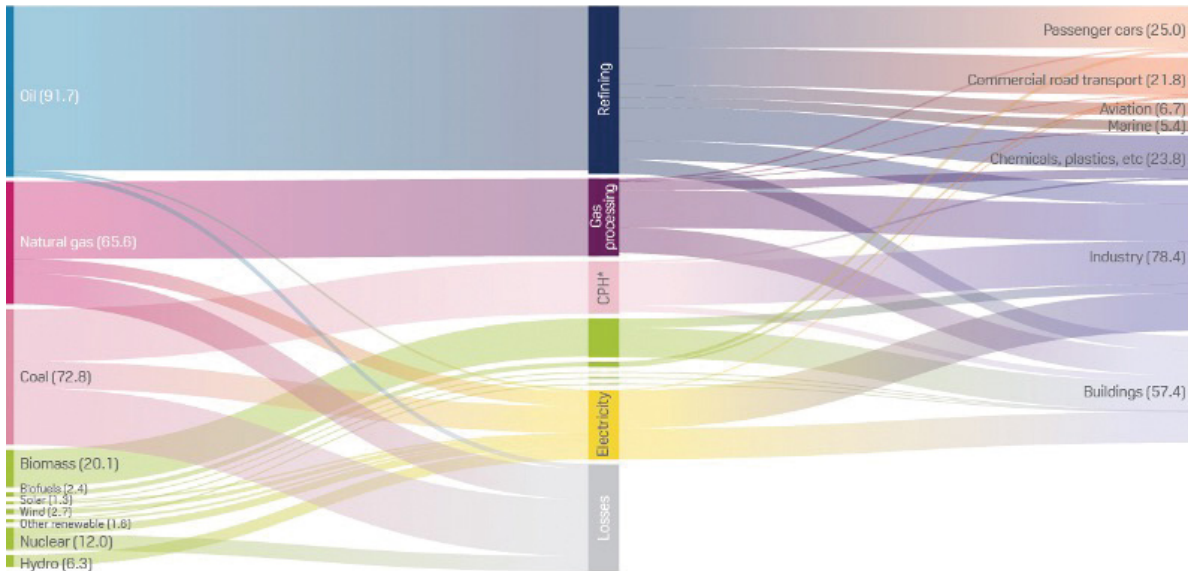
*The outlook was built by calibrating policy targets within key end-use sectors to reasonable changes to economic and investment drivers required to meet those targets. The Outlook is updated on a quarterly basis.*



# What does energy transition mean for fossil fuels and what will the market look like in 2050?

The result will more accurately reflect customer needs and societal preferences across a broad range of factors other than cost. Given the magnitude of this transition, stakeholders need informed perspective, unassailable data, and clear insight to manage and optimize this evolution. Rely on our Global Integrated Energy Demand Model to help frame potential long-term pathways.

## 2020 (million boe/d)



## 2050 (million boe/d)



To learn more, visit [spglobal.com/giem](http://spglobal.com/giem)



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