



# **SCALE UP AND SPEED UP**

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# We've Done This Before



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MORTON STREET, CORNER OF BEDFORD, LOOKING TOWARD BLEECKER STREET,  
MARCH 17, 1893.

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# SHELL POLYMERS

## ECOSYSTEM OF THE FUTURE

### Advanced Chemical Recycling

Mechanical recycling is an important element of the circular economy but has serious limitations dealing with contamination, mixed feedstock grades, flexible from factors and food grade/high performance applications. A new value chain driven by Advanced Recycling technology will catalyze the development and deployment of new sensors combined with machine learning to sort waste, efficiently isolating the difficult to recycle yet valuable plastics to sent to pyrolysis and gasification processes. With recovered materials sorted in a much more efficient way, the burden on the consumer to perfectly sort the waste is alleviated, allowing for a much higher rate of plastic circularity. Circular Feedstocks derived from post use plastic are converted to circular base chemicals (Ethylene) and routed to Shell Polymers Chemical and Energy Parks.



Waste from PA Region to local Advanced Recycling Locations



Net-Zero Circular Polyethylene

### Plastics Converters: Net Zero, Circular Plastics

Plastics Converters, through business with Shell Polymers, now have the ability to offer Net-Zero and Circular PE products to society, in addition to the sustainable energy solutions provided by Shell to further decarbonize their own manufacturing processes.



### Shell Polymers

#### Chemicals and Energy Park

The Shell Polymers brand has well established it's place in the PE business as a different type of competitor. One that not only supplies always-reliable world class circular net-zero PE, but also sustainable energy solutions, sustainability partnership opportunities and an unrivaled customer back approach solving problems customers didn't even realize they had!



Sustainable Energy Solutions

### Sustainability as a Service

With so many businesses striving to decarbonize at a pace that many feel unsustainable, Shell stands at the forefront to offer partnerships in Sustainability, both in idea and solution generation.

### Ethane and Material Suppliers

The Ethane and raw material suppliers to the Polymers Assets are now not only suppliers, but energy solution and sustainability allies. Shell provides these suppliers with much needed renewable and low carbon energy solutions in addition to a CO2 Storage solution for those carbon heavy suppliers seeking to decarbonize. This partnership not only leverages Shell's Sustainability presence in the region, but also reduces the Scope 3 emissions produced in the supply of Ethane and Raw Material.



### Carbon Capture and Sequestration and Blue Hydrogen

With the Mid-Atlantic region filled with hard to decarbonize industry, as well as Shell's world-scale Polyethylene Plant, Shell established a mega-scale regional Carbon Storage Hub, Blue Hydrogen ecosystem, and supported industry with sector leading licensed carbon capture technology. This Hub has the storage capacity for the Polymers Monaca asset as well as the industry in the region. In addition to Blue Hydrogen, has enabled the deep decarbonization of the Mid-Atlantic region and solidified Shell's position as the Sustainability leader in the region.



Blue Hydrogen



CO2

Ethane and Raw Material

Renewable Feedstock to Polymers Monaca and / Circular Ethylene Credits

Sustainable Energy Solutions to Suppliers and Industry Partners

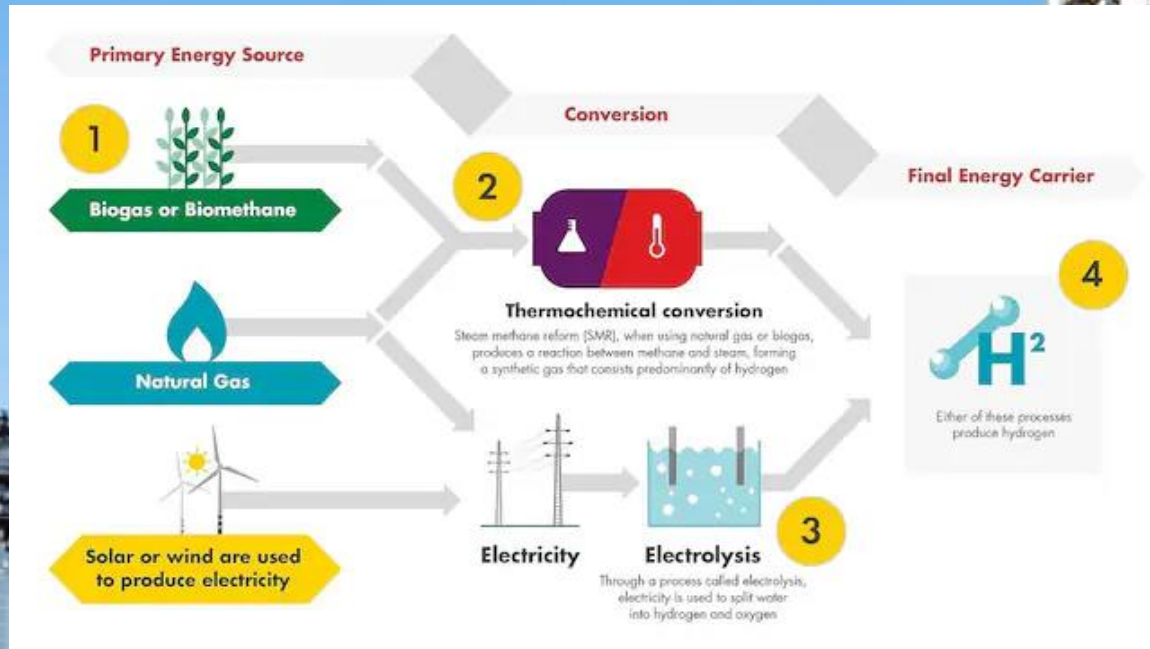
Traded Renewable Credits

Sustainable Energy Solutions to End Customers

Polyethylene



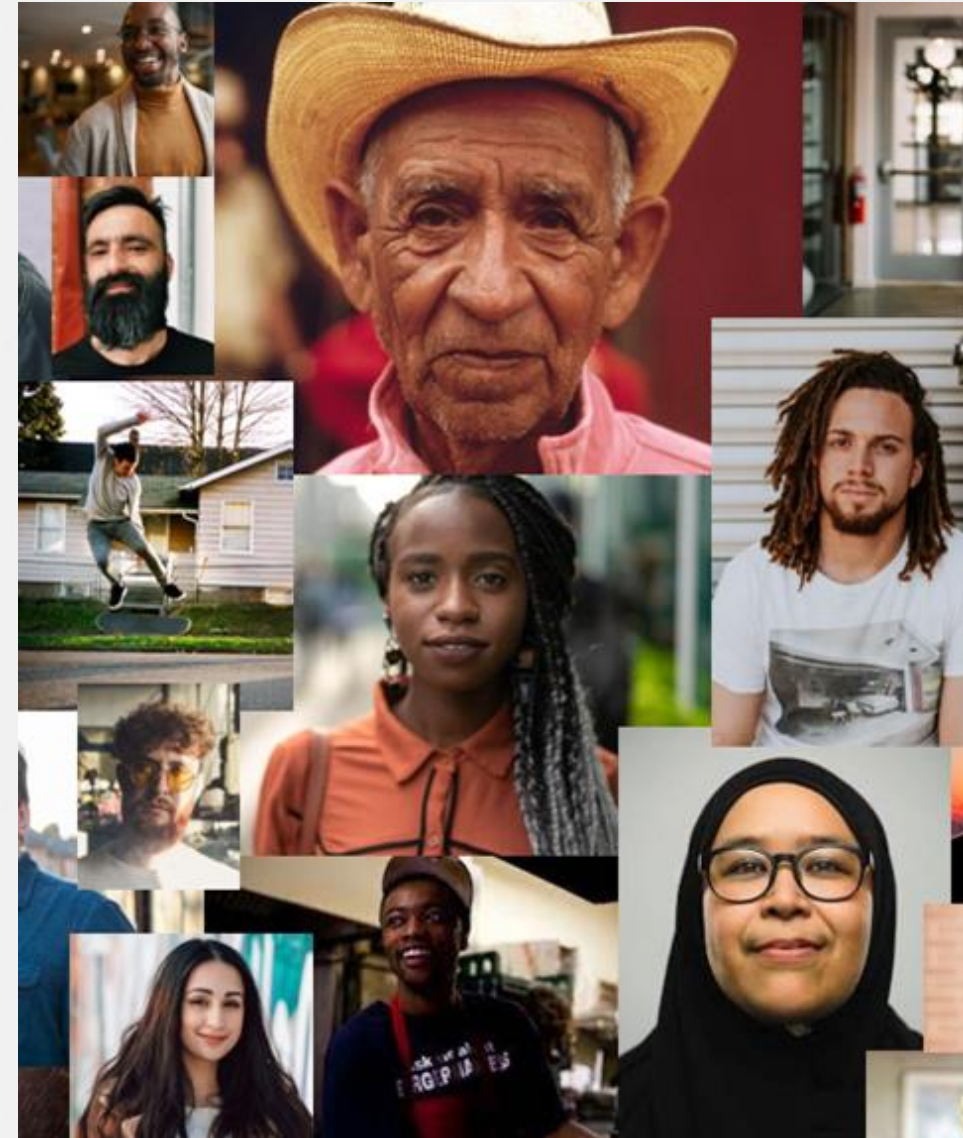
# Hydrogen and CCS



# Partnerships, Infrastructure & Community



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**Thank you**

