

The Digest's 2026 Multi-Slide Guide to the Gulf Coast Biorefining Cluster

Half of US refining, 45% of renewable diesel capacity and most US hydrogen pipe sit on one coast. New capacity bolts on instead of building — inside one storm track and one labour market.

54.4%

of US refining capacity on the Gulf Coast

PADD 3 (Gulf Coast)

10.42 of 19.16 million b/cd

58 of 130 refineries

1 Jan 2026

US EIA, Refinery Capacity Report, June 2026.

Share calculated from EIA figures.



THE GUIDE ANSWERS

What can a Gulf project avoid building, who captures that inheritance, and what does concentration make correlated?

- KEY EVIDENCE (SEE FULL DECK FOR DETAILS)
- 1

Refining concentration — 54.4% of US refining (10.42 of 19.16 million b/cd, 58 of 130 refineries).
- 2

Renewable diesel concentration — 45.1% of US capacity (2,129 of 4,719 million gal/yr); ~68% of Gulf figure is Diamond Green Diesel.
- 3

Inheritance illustrated — \$315M SAF unit at Port Arthur; ~30,000 b/d US SAF (Port Arthur ~15,000).
- 4

Shared networks — >90% of US hydrogen pipe on Gulf; 48 of 106 Class VI CO₂ applications (45%) in LA & TX; LA paused new reviews Oct 2025.
- 5

Shared exposures — Harvey shut 10 refineries (31.7% Gulf; 16.6% US); 3.2m b/d inputs lost (~34%); 11,012 projected workers vs 5,262 base (209%).

THE GULF REFINING-RENEWABLES COMPLEX

Inheritance of indivisible assets and overlapping advantages.

Does not show an independent newcomer would capture the same advantage — much of it is Diamond Green Diesel's.

ROTTERDAM PORT CLUSTER (COMPARTOR)

~2.6 Mt/yr announced 2021–23; only Nesté's 1.3 Mt survives. Shell Pernis, UPM Maasvlakte and BP 10,000 b/d cancelled.

Demonstrates: a cluster gives incumbents survival and newcomers only an option.

WEST TEXAS E-FUELS (CONTRAST)

Infinium's Roadrunner (7.6M gal/yr, under construction, target 2027) in Reeves County wind country.

Demonstrates: a pathway needing cheap power can bypass a legacy cluster.

Cluster or coincidence? Three tests

1 Shared assets

Do projects use the same physical plant?



- Refineries and hydrotreating units
- Hydrogen and steam systems
- Tankage and utilities
- Existing permits and site infrastructure
- Experienced crews

2 Shared flows

Are hydrogen, steam, CO₂ and product movements shared?



Hydrogen



Steam



CO₂



Product
movements

- Shared hydrogen pipelines and networks
- Shared CO₂ transport and storage
- Shared product logistics and storage
- Integrated utility and energy systems

3 Inheritance

Can new units bolt onto what exists?



Existing refinery
(assets & utilities)



Renewable diesel
unit (bolt-on)



SAF unit
(fractionation & tankage)

- Uses existing hydrotreating, hydrogen, steam, tankage and permits
- Adds new units without new greenfield build
- Limits cost, time and permitting

THE BOTTOM LINE

**A cluster must pass all three;
otherwise it is just co-location.**

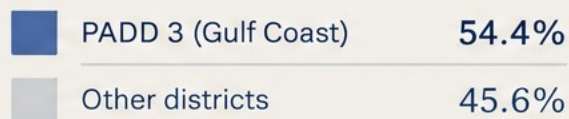
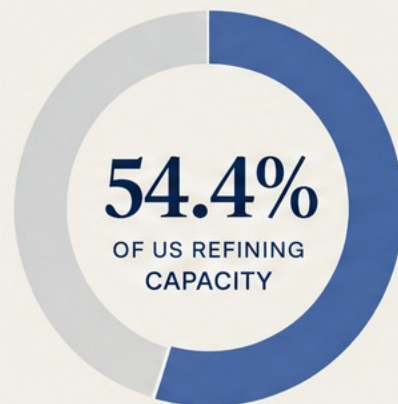
The legacy anchor: the Gulf holds 54.4% of US refining capacity

PADD 3 REFINERY CAPACITY

10.42
of 19.16 million barrels
per calendar day

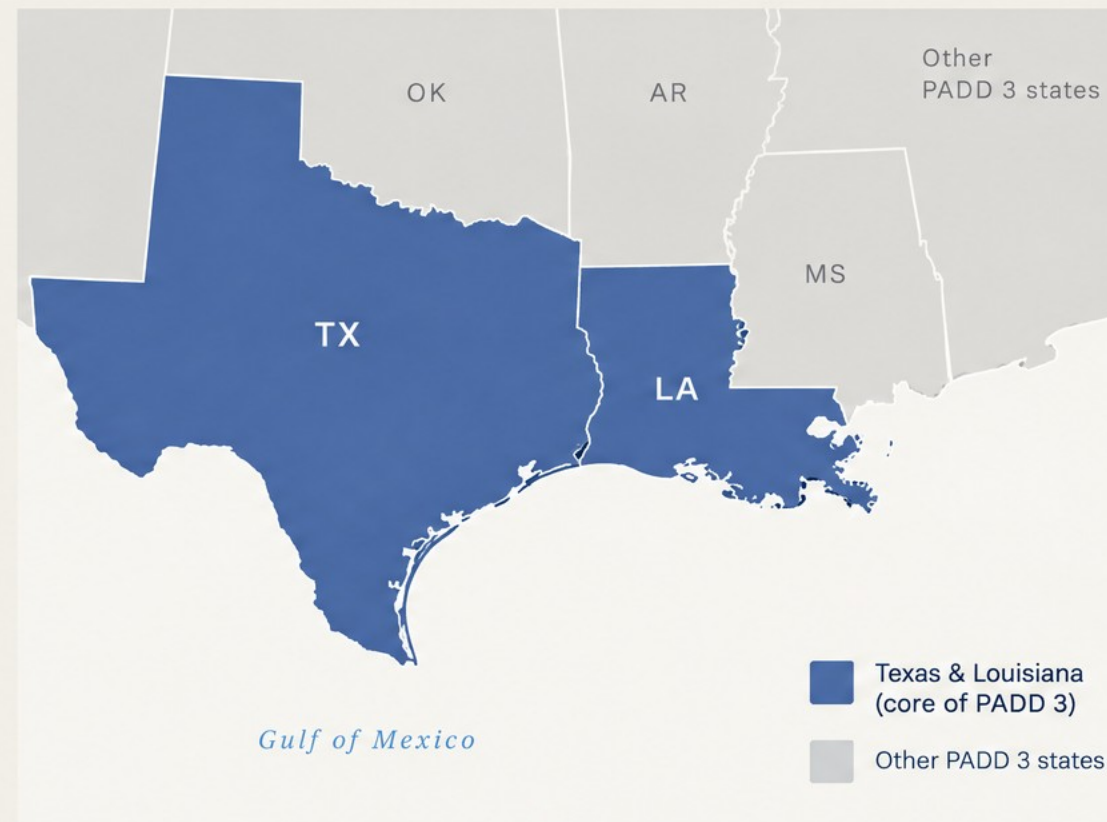
PADD 3 REFINERIES

58
of 130 US refineries

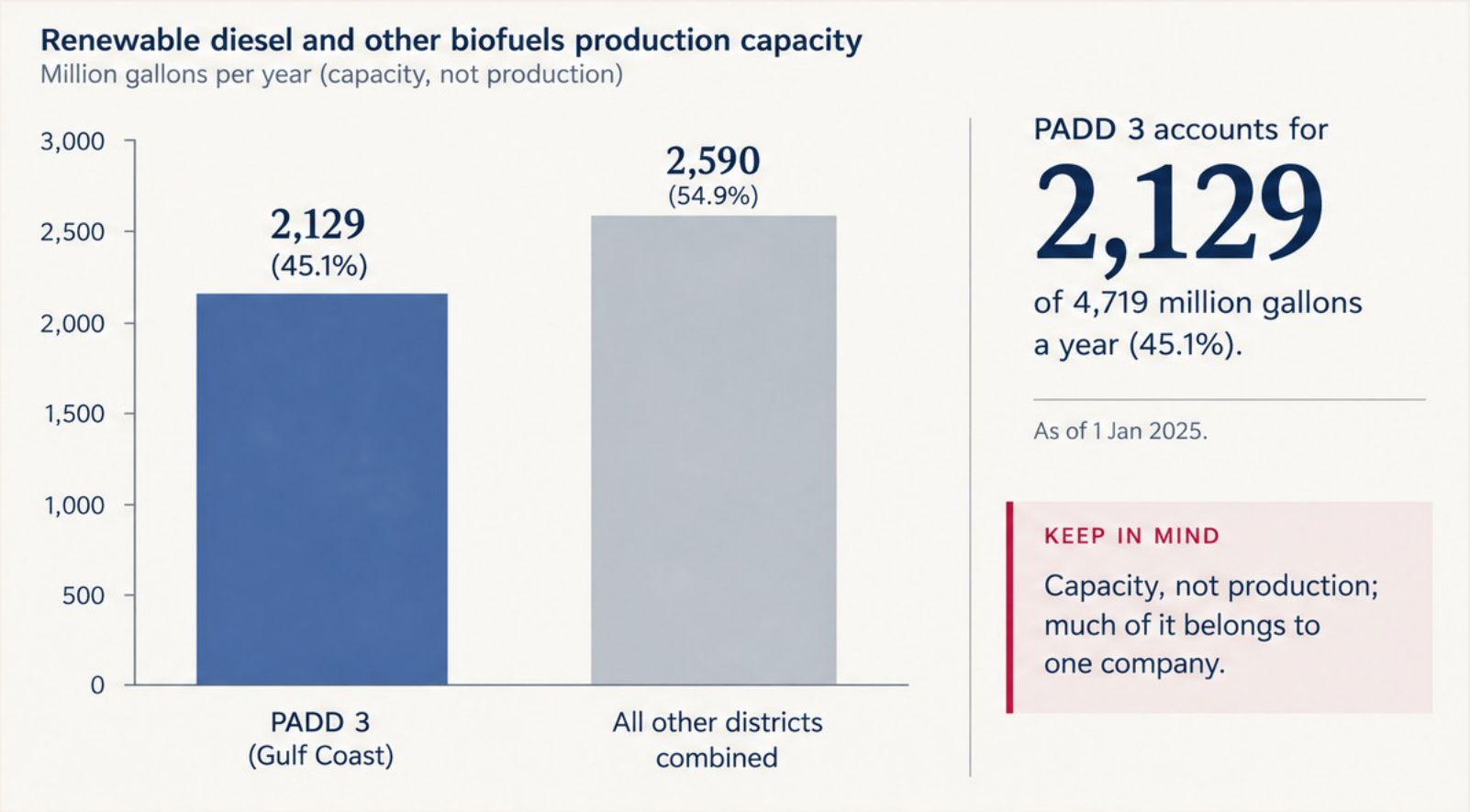


PADD 3 — THE GULF COAST

Texas and Louisiana account for the bulk of PADD 3 refining capacity, anchoring the US refining system.



Renewable diesel follows the refineries: 45.1% of US capacity



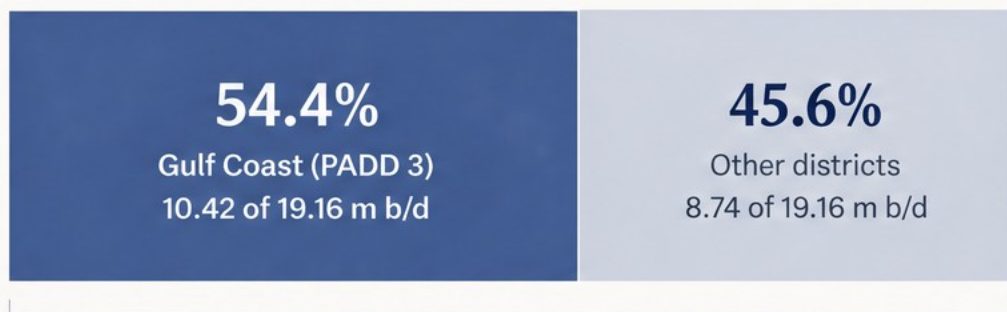
Key takeaways

- PADD 3 concentration**
The Gulf Coast (PADD 3) held 45.1% of US renewable diesel and other biofuels production capacity (2,129 of 4,719 million gallons a year) on 1 Jan 2025.
- One company, large share**
Diamond Green Diesel's Norco and Port Arthur plants account for about 68% of the Gulf figure.
- Capacity, not production**
These are nameplate capacity figures, not actual output.

Cluster share is not company share: one firm holds about 68% of Gulf capacity

PADD 3 refinery capacity

Share of US total, 1 Jan 2026



19.16 million barrels per day (US total)

The region's advantage and one incumbent's advantage overlap.

Diamond Green Diesel's Norco and Port Arthur plants account for about 68% of PADD 3 renewable diesel capacity — the same region that holds 54.4% of US refining capacity.



The region's advantage

A mature refining base, shared infrastructure and established supply chains give the Gulf Coast an edge for renewable fuels.



One incumbent's advantage

Diamond Green Diesel holds about 68% of Gulf renewable diesel capacity, making the region's inheritance highly concentrated.



Separate the two

The region's infrastructure is real. But much of the renewable diesel capacity belongs to one company. Separate the two before underwriting.

KEEP IN MIND

One company, big share

Diamond Green Diesel's Norco and Port Arthur plants account for about 68% of the Gulf's renewable diesel capacity.

Capacity ≠ production

The figures are capacity, not production. Much of it belongs to one company.

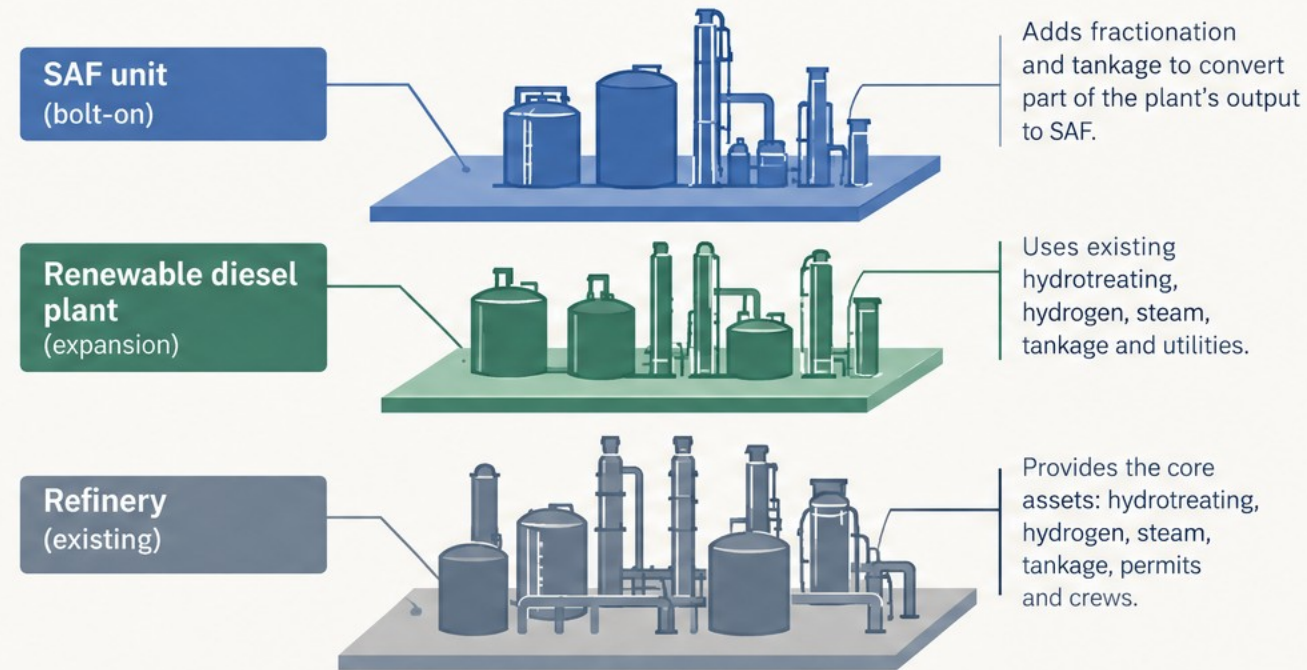
A cluster gives options — not guarantees

The Gulf refining–renewables complex shows inheritance of indivisible assets and overlapping advantages. It does not show that an independent newcomer would capture the same advantage.

What the next unit inherits

A layered build, not a new site

Renewable fuel capacity can be added inside operating refineries that already have hydrotreating, hydrogen, steam, tankage, permits and crews.



Analytical illustration — illustrated by Diamond Green Diesel Port Arthur.

Inherited assets



Hydrotreating

Existing units and catalysts.



Hydrogen

Production, storage and distribution.



Steam

Boilers and utilities.



Tankage

Product, intermediate and feedstock storage.



Permits

Environmental and operational approvals.



Crews

Skilled workforce and operating teams.



The inheritance comes with the site, and belongs mainly to its owner.

New units bolt on, but the existing owner keeps most of the inherited advantage — and the value.

Half of US SAF capacity in one bolt-on

15,000
of about 30,000 b/d

US SAF capacity at Port Arthur
(about half).



SAF unit completed Oct 2024

\$315 million

up to 235 million gal/yr



Underlying RD plant

about \$1.45 billion

for 470 million gal/yr

How the SAF unit bolts on



SAF unit

Fractionation + tankage
(new)



Renewable diesel plant

Existing hydrotreating
(existing)



Refinery

Hydrogen, steam, tankage,
utilities (existing)



Analytical illustration

KEEP IN MIND

- Costs are not like-for-like — SAF unit adds fractionation and tankage to existing hydrotreating.
- SAF capability is swing capacity, not guaranteed output.

The networks underneath: shared hydrogen and storage

>90%

of roughly 1,600 miles
of US hydrogen pipeline
lie along the Gulf Coast.

Air Products' network alone:

600+ miles
20+ plants

SHARED HYDROGEN AND CO₂ STORAGE NETWORK (STYLISTED)



— Hydrogen pipeline network
(>90% on Gulf Coast)

● Air Products plant
(20+ plants)

▨ CO₂ storage applications
(48 of 106 under review)

Analytical illustration
for the map.



HYDROGEN PIPELINES

>90% of ~1,600 miles lie on the Gulf Coast.



AIR PRODUCTS' NETWORK

600+ miles, 20+ plants.



CO₂ STORAGE APPLICATIONS

Louisiana (Class VI primacy Feb 2024)
and Texas (Dec 2025) held **48** of 106
Class VI applications under review
nationally at end-Q1 2026 (45%).
Louisiana paused new reviews in Oct 2025.

KEEP IN MIND

- These are shared networks — not dedicated to one company or project.
- Storage permitting is advancing, but Louisiana's pause shows it can be reversed.

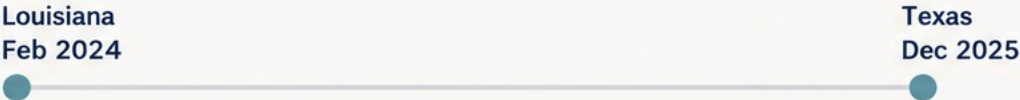
Permitting familiarity, and its reversibility

Louisiana and Texas held 48 of 106 Class VI CO₂ storage applications under review at end-Q1 2026 (45%).



Class VI CO₂ storage applications under review (end-Q1 2026)

Primacy timeline



PAUSE

Louisiana paused new reviews in October 2025.

Gulf Coast context



THE BIG PICTURE

48
of 106 Class VI applications
(45%) in LA/TX at end-Q1 2026.

Primacy

Louisiana: Feb 2024
Texas: Dec 2025

Louisiana

paused new reviews
in Oct 2025.

KEEP IN MIND

- Louisiana and Texas are part of a larger national queue (58 applications).
- Primacy gives state authority, not automatic approval.
- A pause in reviews can be temporary and may not affect existing permits.

One storm, a sixth of US refining



Hurricane Harvey,
Aug 2017:

10 refineries shut



31.7%

of Gulf and 16.6%
of US refining capacity



Gulf refinery inputs fell

3.2 million b/d (-34%)

in one week

KEEP IN MIND

Shutdowns are partly
precautionary.

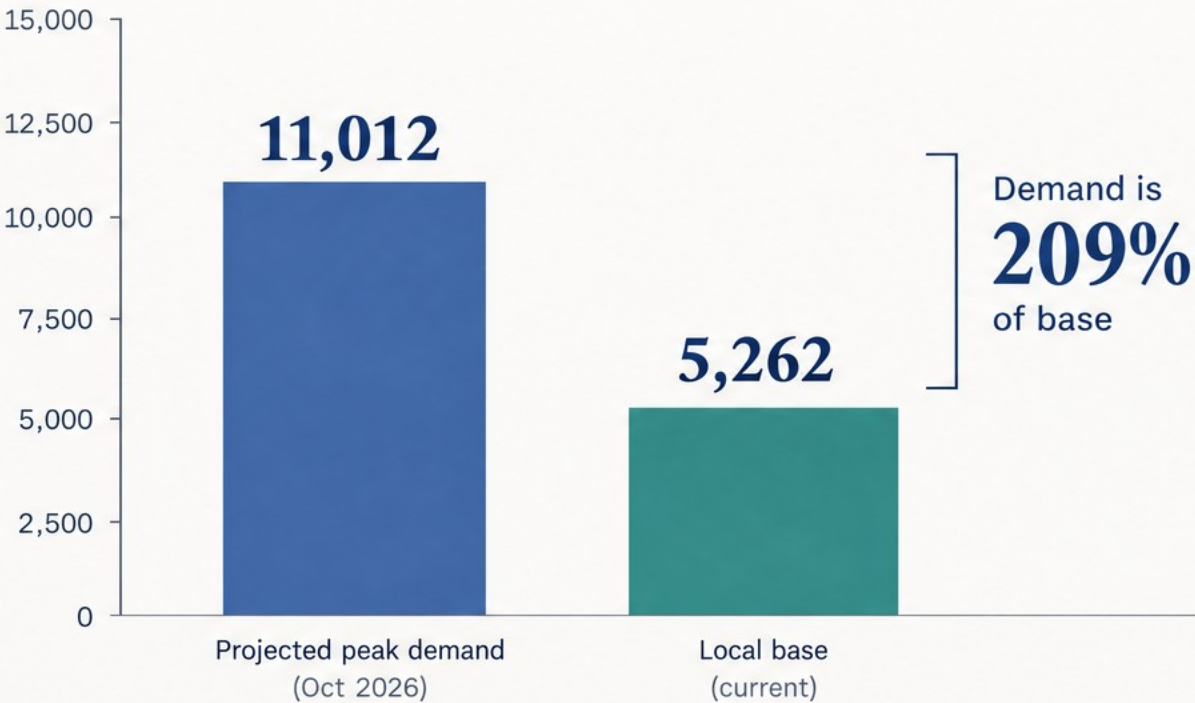
Hurricane Harvey's risk footprint
(stylised, not to scale)



When projects peak together: labour congestion at Lake Charles

CONSTRUCTION WORKER DEMAND

Projected peak vs local base (Lake Charles, October 2026)



KEY FIGURES

11,012

projected construction workers, October 2026

5,262

local base workers

209%

demand is 209% of base

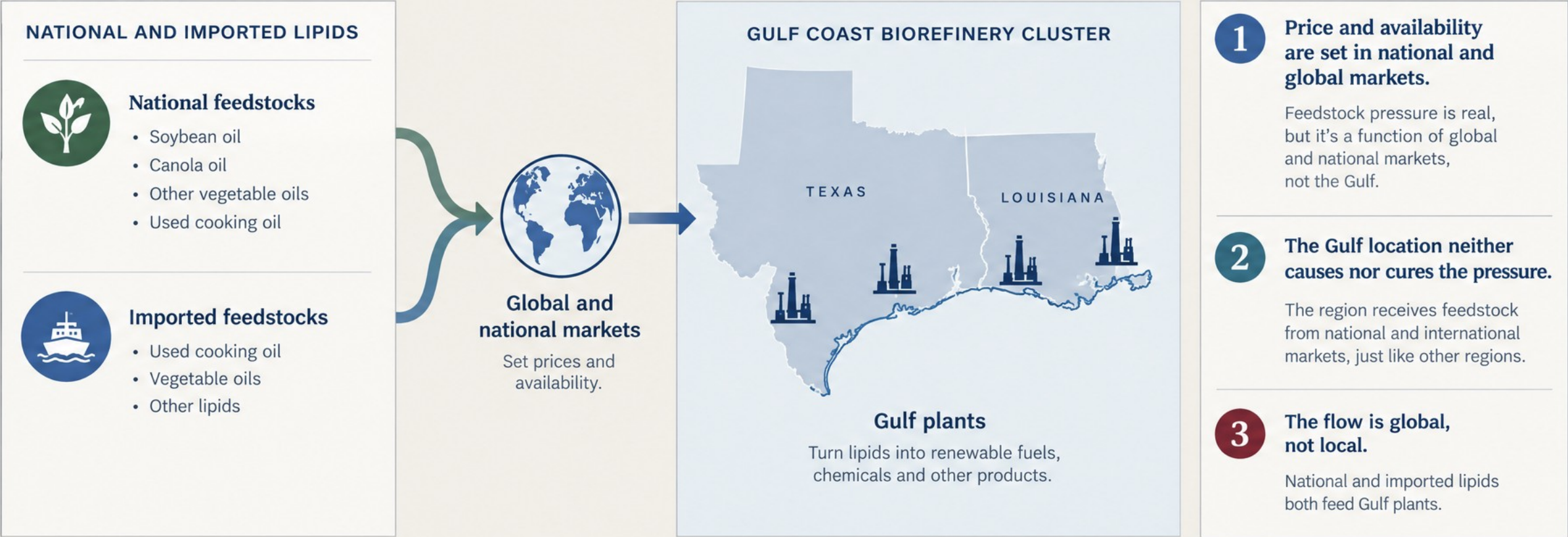
KEEP IN MIND

The 11,012 figure is a projection, not an outcome.

SOURCE

Better Louisiana, Sept 2025.
The labour figure is a projection.

Feedstock: a global squeeze, not a local one



Analytical illustration.

Source: US EIA, Refinery Capacity Report, June 2026 (share calculated from EIA figures); US EIA, Sept 2025 (capacity, not production; much of it belongs to one company); Valero via Oil & Gas Journal (company-reported); US EIA, May 2025 (SAF swing capacity, not guaranteed output); Congressional Research Service / PHMSA; Air Products (company-reported); Enverus via World Oil, June 2026 (consultant estimate); CRS; US EIA; Better Louisiana, Sept 2025.

Same port, different fates: Rotterdam shows incumbents survive

About
2.6 Mt/yr
of new biofuel capacity
announced in 2021–23

Only Neste’s 1.3 Mt expansion
survives (about half)

- 1.3 Mt/yr expansion beside its existing plant remains operational.

Cancelled projects (company reports, 2024–25; attrition calculated)

- Shell Pernis (about \$1.4bn impact)
- UPM greenfield Maasvlakte
- BP 10,000 b/d plant

A cluster gives incumbents survival
and newcomers an option.

Rotterdam port cluster — project outcomes



KEEP IN MIND

- What this shows**
- A cluster gives incumbents survival and newcomers only an option.
- What this does not show**
- A Gulf-vs-Rotterdam cost comparison — none exists.

Source: company reports, 2024–25; attrition calculated.

The pathway that went elsewhere: e-fuels in West Texas



- **Infinium Roadrunner**
About 7.6 million gal/yr, under construction, targeted 2027.
- **Located in Reeves County wind country**
Not in the coastal cluster.
- **Pathways needing cheap power**
Can bypass a legacy cluster.
- **Does not show the Gulf is losing its renewable diesel advantage**
It shows a different pathway, not a loss of the Gulf's position.

KEEP IN MIND

This is a different pathway, not a competing one. It shows how pathways that need cheap power can bypass a legacy cluster — it does not show the Gulf is losing its renewable diesel advantage.

Decision test: six questions before committing capital

1 Which inherited asset — site, hydrotreater, hydrogen contract, storage permit — can this project actually access?

INHERITED ASSETS (EXAMPLES)		
	Site	☐ Available?
	Hydrotreater	☐ Available?
	Hydrogen contract	☐ Available?
	Storage permit	☐ Available?

KEY QUESTION
What can this project actually access — and on what terms?

Analytical illustration.

2 Is the advantage the region's, or one incumbent's?

THE CLUSTER TEST

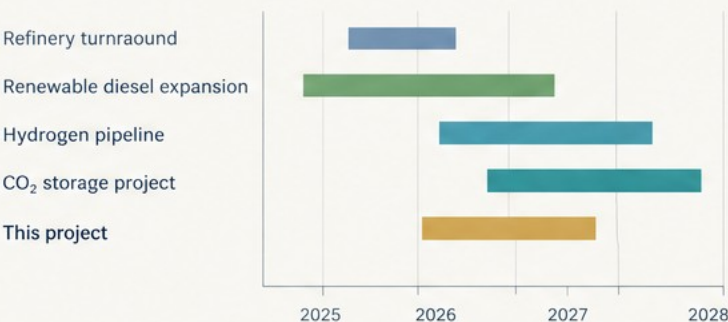


DOES THE ADVANTAGE BELONG TO THE REGION — OR ONE PLAYER?

Analytical illustration.

3 Which construction peaks overlap this project's schedule?

OVERLAPPING CONSTRUCTION PEAKS (EXAMPLE)



Analytical illustration.

4 How much of the portfolio sits inside one storm footprint?



KEY RISK
One hurricane can shut a sixth of US refining.

1/6 of US refining capacity (10 refineries)
31.7% of Gulf refining capacity

Also: overlapping megaprojects compete for the same labour pool.

Source: CRS; US EIA; Better Louisiana, Sept 2025.

(Storm shutdowns are partly precautionary; labour figure is a projection.)

5 Is the feedstock risk local, national or global?



KEEP IN MIND
Feedstock risk is real, but it's set in national and global markets, not on the Gulf.

Analytical illustration.

6 Would a pathway driven by cheap power do better elsewhere?



KEY POINT
A pathway needing cheap power can bypass a legacy cluster.

KEEP IN MIND
This does not demonstrate that the Gulf is losing its renewable diesel advantage.

Source: company reports, 2024–25.

Analytical illustration.