Atlas
Energy Solutions



POWER PRIMER

Behind the Meter Power for Industrial Processes

How process plants use power, why the grid is struggling to keep up, and where on-site generation fits.



Every gallon of fuel, tonne of fertilizer, and cargo of LNG — and the plastics, chlorine, and industrial gases behind most manufactured goods — comes out of a process plant: a facility that moves, compresses, heats, cools, and separates material around the clock, often for years between shutdowns. These plants are among the largest and most demanding electricity users in the economy, and the United States is building a new generation of them, from Gulf Coast LNG terminals and petrochemical units to Permian gas processing plants. Their electricity drives thousands of motors, a handful of giant compressors, and the cooling and safety systems that hold the process steady, which is why an electrical event lasting less than a second can stop production for days. This short primer explains what these plants have in common and where they differ, what they ask of a power supply, which rules govern how they connect, why the grid is struggling to keep pace, and how dedicated on-site generation is being engineered to meet the load while keeping a grid connection open.

EXECUTIVE SUMMARY

Power is becoming part of the industrial investment decision

The United States is building refineries, LNG terminals, chemical plants, and gas processing capacity at a pace not seen in decades. Three findings frame what that means for power:

01

Process plants have large, specialized power demands

Tens to hundreds of megawatts, running 24/7 for years between shutdowns. Motors and compressors use most of it, and how that load behaves sets the design.

5–800+ MW, by plant type and drive choice

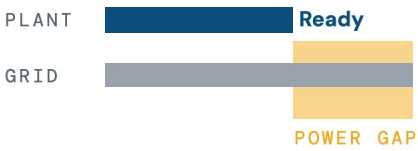
>80% of refinery electricity drives motors

24/7 for years between turnarounds

02

The grid is not keeping pace with the investment

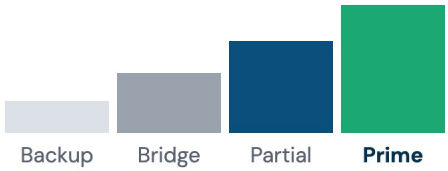
Large-load queues, transformer lead times, and new interconnection rules mean a plant can be finished before its utility service is. Most process plants cannot move to where power is available.



03

On-site power is moving from backup to prime

Process industries have generated their own power for decades. Dedicated behind-the-meter plants are now being built as the primary supply, engineered around the process.



FAST TO FIRST POWER
Built on the plant's schedule, outside the utility queue.

DEDICATED CAPACITY
Sized to the process, not shared with neighboring loads.

GREATER CONTROL
Redundancy, power quality, and restart engineered in.

POWER AS A SERVICE
An independent power producer owns and runs the plant.

THE SHIFT

For a growing set of industrial projects, power is no longer something that simply arrives at the fence line. It is infrastructure that has to be planned alongside the plant — and, increasingly, the item that decides when the plant can start.

A new generation of process plants is under construction

The United States is in the middle of its largest buildout of process infrastructure in decades, and it is arriving as **clusters of very large projects rather than smooth, national load growth**. LNG leads: export capacity of about 15 Bcf/d in late 2025 could roughly double by the early 2030s on projects that have already reached a final investment decision (FID). Behind it come new ethylene and chlor-alkali units, low-carbon ammonia, a wave of Permian gas processing and Gulf Coast NGL fractionation, and the first new U.S. refinery announced in nearly 50 years.

~2×

U.S. LNG export capacity: ~15 Bcf/d in 2025, ~33 Bcf/d with projects already at FID (EIA; RBN Energy)

~26 GW

Permian-region demand Texas planners expect by 2038, about a third of ERCOT's current summer peak

1.4 Bcf/d

New gas processing one operator has under construction in the Delaware Basin, due 2027–28

Expected first operation of representative projects



Illustrative. Bars span the earliest to latest expected first operation among the named projects; dates are developers' targets as reported by EIA, Argus, and company releases through October 2026, and they change often.

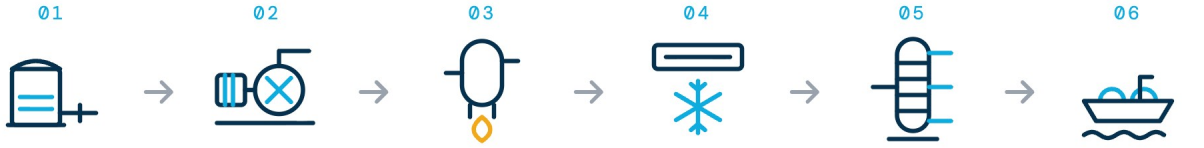
PROJECTS TO WATCH · PAGE 17

The projects behind this chart — fourteen in all, across LNG, chemicals, ammonia, gas processing, and refining — are listed on **page 17** with the permit, FID, and construction milestones each has reached. Each arrives with a firm startup date and a site fixed by pipelines and ports.

02 / THE PROCESS

Different products, one industrial pattern

A refinery, an LNG terminal, and an ammonia plant make very different products from the same physical steps. Feedstock is **moved, pressurized, heated or reacted, cooled, and separated** — continuously, for months or years between planned shutdowns called turnarounds. Electricity does most of the moving and cooling. Fuel and steam do most of the heating.



01 **Receive feedstock** — Inlet pumps and compression

02 **Pump & compress** — The largest motors on site

03 **Heat & react** — Fans and blowers; heat from fuel or steam

04 **Cool & refrigerate** — Air-cooler fans, chillers, refrigeration

05 **Separate & purify** — Reflux and vacuum pumps, compression

06 **Store & ship** — Transfer and loading pumps

UTILITIES RUN UNDERNEATH EVERY STEP

- Cooling water
- Steam
- Instrument air
- Nitrogen
- Water treatment
- Controls and safety systems

The common process chain. Under each step: where its electricity goes.

EIGHT INDUSTRIES, ONE PATTERN

Petroleum refining
Crude oil into fuels and petrochemical feedstocks by distillation, cracking, and treating.

Olefins & petrochemicals
Ethane or naphtha cracked into ethylene and propylene, the building blocks of plastics.

Ammonia & fertilizer
Hydrogen from natural gas combined with nitrogen at high pressure and temperature.

Gas processing & NGL fractionation
Raw gas stripped of liquids, which are then split into ethane, propane, and butanes.

LNG liquefaction
Natural gas cleaned and chilled to about -260°F so it can be shipped by sea.

Specialty & commodity chemicals
Reactors, distillation, and batch steps that make intermediates and finished chemicals.

Chlor-alkali & electrochemical
Electricity splits salt brine into chlorine, caustic soda, and hydrogen.

Industrial gases
Air compressed and distilled at cryogenic temperatures into oxygen, nitrogen, and argon.

WHY IT MATTERS FOR POWER

The steps are coupled, so the plant behaves like one machine. When a compressor trips, the units upstream back up and the units downstream starve. In a process plant, power is not a utility bill. It is part of the process.

03 / THE LOAD

Where the power goes

Most of a process plant's electricity becomes motion. **Electric motors account for more than 80% of electricity use at a typical refinery or onshore oil and gas facility**, according to the industry association IPIECA, with pumps taking the largest share and compressors, fans, and smaller drives most of the rest. The pattern holds broadly across chemicals, gas processing, and industrial gases. The exceptions are electrochemical plants, where electricity is itself a raw material, and plants that drive their largest compressors with gas or steam turbines instead of motors.

SIX LOAD FAMILIES

LOAD FAMILY	WHAT IT DOES	HOW IT BEHAVES
Pumps	Move crude, feed, reflux, cooling water, boiler feedwater, and product	Hundreds of motors, from a few kilowatts to several megawatts; a steady base load
Compressors	Raise the pressure of process gas, hydrogen, refrigerant, and air	The largest machines on site, often tens of megawatts each; demanding starts
Fans & blowers	Air-cooled exchangers, cooling towers, and furnace draft	Many mid-size motors; demand climbs on hot afternoons
Refrigeration	Chill gas to liquefy or separate it in LNG, olefins, and gas processing	Concentrated and continuous; needs more power as the ambient temperature rises
Electrochemical	Electrolysis for chlorine, caustic soda, and hydrogen	DC rectifiers running flat at very high utilization; a major source of harmonics
Utilities & safety	Instrument air, nitrogen, water treatment, controls, fire water, and flare systems	A small share of megawatts, but they set the emergency-power and black-start design

Share of motor use per IPIECA's energy efficiency compendium (2023). Motors in petroleum and chemical service are typically built to API 541 or API 547.

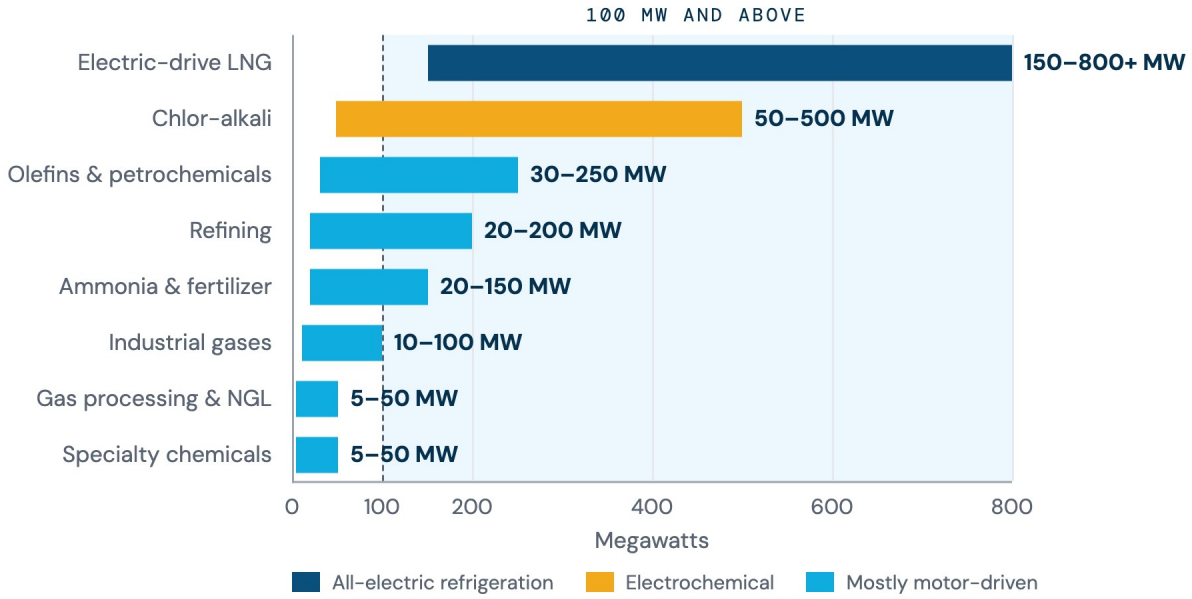
WHAT SURPRISES MOST PEOPLE

The same process can create very different electrical loads. An LNG train whose refrigerant compressors run on gas turbines draws only its auxiliaries from the electrical system. Built with electric motors, the same train becomes one of the largest loads on its grid: Freeport LNG's all-electric trains were planned to add about 656 MW of demand on the Texas Gulf Coast, plus 146 MW for gas pretreatment. **Drive selection, more than plant size, decides how much electricity a plant needs.**

HOW BIG THE LOAD GETS

One facility's demand can range from a few megawatts to several hundred. These are **screening values, not design figures**: a gas-turbine-driven compressor and an electric one can do the same process duty with very different plant loads.

Typical electrical demand of a single facility



Illustrative planning ranges on a linear scale, compiled from the public sources and rules of thumb below; the shaded area marks loads of 100 MW and above. Actual demand varies with plant scale, drive selection, steam balance, and electrification.

RULES OF THUMB

PLANT	APPROXIMATE ELECTRICITY	BASIS
Refining	~0.27 MW per 1,000 b/d of crude capacity, purchased power only	U.S. refineries bought 42.7 billion kWh in 2025 (EIA) across about 18 million b/d; many also self-generate
Electric-drive LNG	~45–55 MW per million tonnes a year of capacity	Freeport LNG: ~656 MW for liquefaction plus 146 MW for pretreatment, at roughly 15 Mt/yr
Gas processing	~0.1 MW per MMcf/d for electric residue compression	Two 250 MMcf/d Delaware Basin plants served by three 22,000-hp compressor motors
Chlor-alkali	~2,500 kWh per tonne of chlorine, or ~105 MW per 1,000 t/day	Membrane-cell electrolysis (U.S. Department of Energy)

Derived from the public figures shown; averages, not peaks. Peak and installed capacity run higher once the largest motor start and redundancy are counted.

THE TAKEAWAY

Production capacity alone does not define the power requirement. Before sizing anything, ask how the largest machines are driven, how much steam the site raises itself, and how much of the process may electrify over the plant's life.

04 / THE DIFFERENCE

Same megawatts, different power systems

Two plants with the same average demand can ask completely different things of their power supply. What matters is the **load signature**: how demand is divided among machines, how it moves, and what happens when part of it trips. Picture three plants that each draw about 100 MW.

REFINERY



Distributed

Hundreds of motors across many process units. Calls for segmented buses, priority load shedding, and a staged restart.

ELECTRIC-DRIVE LNG



Concentrated

A few very large refrigeration drives. Calls for harmonic and reactive-power control and plans for sudden load rejection.

CHLOR-ALKALI



Electrochemical

DC rectifiers running flat at very high utilization. Calls for harmonic filtering, power-factor control, and low-cost energy.

Illustrative. Each panel shows roughly the same total demand, divided among the plant's individual loads.

WHAT EACH INDUSTRY'S LOAD ASKS FOR

SECTOR	DEFINING CHARACTERISTIC	ENGINEERING IMPLICATION
Refining	Many units and motors; mature steam and cogeneration systems	Segmented buses, critical-load priority, cutovers timed to turnarounds
LNG	A few exceptionally large refrigerant compressor drives	Dynamic studies, drive coordination, reactive support, load-rejection plans
Olefins & petrochemicals	Very large compressors tied to the plant's steam balance	Design power and steam together; complex, staged restart
Specialty chemicals	Batch and recipe-driven production	Step loads; protect batches in progress; careful restart sequencing
Ammonia & fertilizer	Synthesis compression, plus growing air-separation and CO_2-capture loads	Large continuous loads that add power without adding product; strong heat-recovery fit
Chlor-alkali	Very large DC rectifier load; electricity is the main input cost	Harmonic filtering, power-factor control, long-term price certainty
Gas processing & NGL	Remote sites; compression scales with throughput	Modular capacity, black start, fuel available on site
Industrial gases	One very large main air compressor running flat	Motor-start design, very high availability, steady base load

Generalized characteristics; individual plants vary with process technology, drive selection, and how much steam and power they already make on site.

05 / THE ENGINEERING

Megawatts are only the first question

Sizing a power supply for a process plant starts with the load study, but the decisive questions are about behavior. A credible design answers six of them, usually through formal studies under the **IEEE 3000-series recommended practices** for industrial power systems.

MOTOR STARTING

Can it start the largest motor?

A large induction motor draws five to seven times its running current as it accelerates, pulling voltage down plant-wide.

POWER QUALITY

Will drives distort the voltage?

Variable-frequency drives and rectifiers inject harmonics and draw reactive power. IEEE 519 sets the limits.

FAULT DUTY

Can switchgear clear a fault?

Each generator added raises available fault current, which sets breaker ratings, protection, and arc-flash limits (IEEE 1584).

REDUNDANCY

What survives a single failure?

N+1 or N+2 generation, segmented buses, and automatic load shedding decide which loads ride through.

RESTART

How does the process come back?

Re-energizing the electrical system is the first step. The process returns in a fixed order that can take hours to days.

HEAT

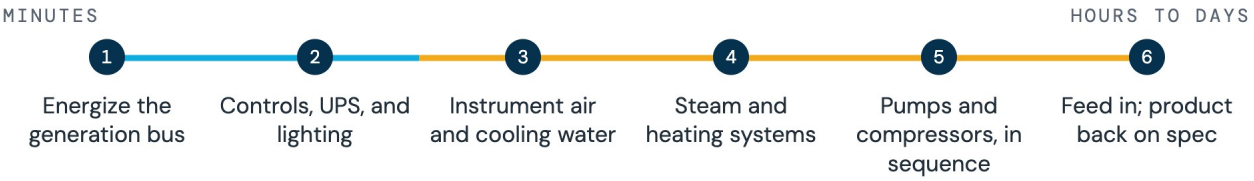
Can waste heat do useful work?

Engine exhaust and jacket heat can raise steam or hot water — if temperature, pressure, and timing match the process.

WHAT SURPRISES MOST PEOPLE

On a strong utility grid, a 20 MW motor can sometimes be started straight across the line. On a dedicated 100 MW plant, the same start would briefly demand **more than 100 MVA — more than the whole plant**. That is why islanded designs pair the largest motors with soft starters or variable-frequency drives, and size batteries and reserve around the worst start, not the average load.

BLACK START IS NOT PROCESS RESTART



Illustrative restart sequence. The order sets battery size, reserve margin, and which loads must never lose power.

WHO SETS THE RULES

Several rulebooks apply at once, and they govern different things. **Grid rules apply where and how a plant connects to the grid. Electrical and process-safety codes apply inside the fence either way.** Air permits apply to any on-site combustion.

LAYER	WHO SETS IT	WHAT IT GOVERNS	ON-SITE POWER
Bulk power system	NERC and its Regional Entities; FERC	Reliability standards and registration; federal large-load policy	Grid-parallel plants that can export more than 75 MVA; islanded plants generally sit outside
Grid operator	ERCOT, other RTOs and ISOs, and utilities	Interconnection studies, operating rules, emergency curtailment	Any grid tie; ERCOT treats sites of 75 MW or more as large loads
State law	Texas SB 6 (2025) and PUCT rules; other states' large-load tariffs	Study fees and security, backup-generation disclosure, curtailment	New or expanded ERCOT loads above 75 MW at one site
Plant electrical	NFPA 70 (NEC), NFPA 70E; IEEE 3000 series, 519, and 1584	Wiring and hazardous locations, safe work, system studies, harmonics, arc flash	Always
Equipment & siting	API 541 and 547; API RP 500 and 505	Large motors in petroleum and chemical service; where ignition sources may sit	Always; generators are sited outside classified areas
Process safety	OSHA Process Safety Management; EPA Risk Management Program	Hazard analysis and management of change for covered processes	When power changes touch a covered process
Air quality	EPA NSPS JJJJ and NESHAP ZZZZ; state air permits	Engine emission limits, controls such as SCR, offsets in nonattainment areas	Any on-site combustion generation

Simplified. Applicability depends on the site, configuration, interconnection, and jurisdiction. The 75 MVA test is the behind-the-meter exclusion in NERC's Bulk Electric System definition. Not legal advice.

WHAT IS CHANGING

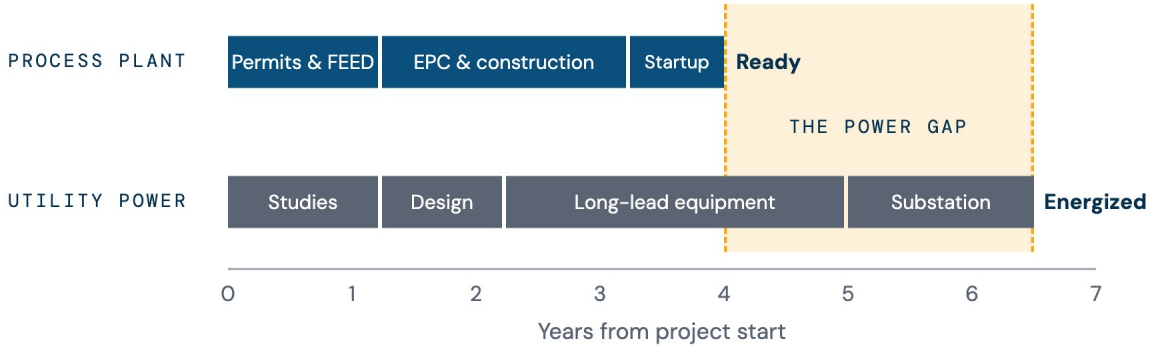
- **FERC told grid operators to revisit large-load rules.** In June 2026 it ordered six RTOs to justify or revise their tariffs, including how they treat co-located and behind-the-meter generation and flexible loads.
- **NERC raised its alert level on large loads.** A May 2026 Level 3 alert asks planners to model, study, and commission computational loads such as data centers more rigorously. It does not target process plants, but the same tools are spreading to large loads generally.
- **Texas put large loads on new terms.** Proposed rules under SB 6 call for $50,000 per MW of security, full payment of interconnection costs, disclosure of on-site backup able to serve half of demand, and curtailment in grid emergencies.

06 / THE CONSTRAINT

The plant can be ready before the grid is

A new process plant follows one critical path: site, permits, engineering, construction, commissioning. Its utility connection follows another — load studies, network upgrades, rights-of-way, long-lead transformers, and a new substation — on a schedule the plant does not control. **The risk is rarely an outright no. It is a yes, subject to upgrades and an uncertain in-service date.**

Two critical paths



Illustrative. Durations vary widely by market and project; the point is that the two paths are independent, and the plant controls only one of them.

~438 GW

Large-load requests ERCOT was tracking in May 2026; most had no studies submitted yet

160+ wk

Substation-transformer lead time in 2026, vs. ~50 weeks for transformers in 2021 (Wood Mackenzie)

166 GW

Forecast U.S. peak-demand growth 2025–2030; data centers ~90 GW, industry ~30 GW (Grid Strategies)

GENERATION

Enough supply at peak, as reserve margins tighten.

TRANSMISSION

New high-voltage paths take years to permit and build.

SUBSTATIONS

Transformers and switchgear with multi-year lead times.

STUDIES

Queues where requests wait before any upgrade starts.

THE LOCATION PROBLEM

A data center can sometimes move to wherever power is available. A process plant usually cannot. Feedstock pipelines, ports, rail, water, product offtake, salt caverns, CO_2 storage, and existing units decide where it must be built — so the power has to come to the plant.

GRID RELIABILITY IS NOT PROCESS RELIABILITY

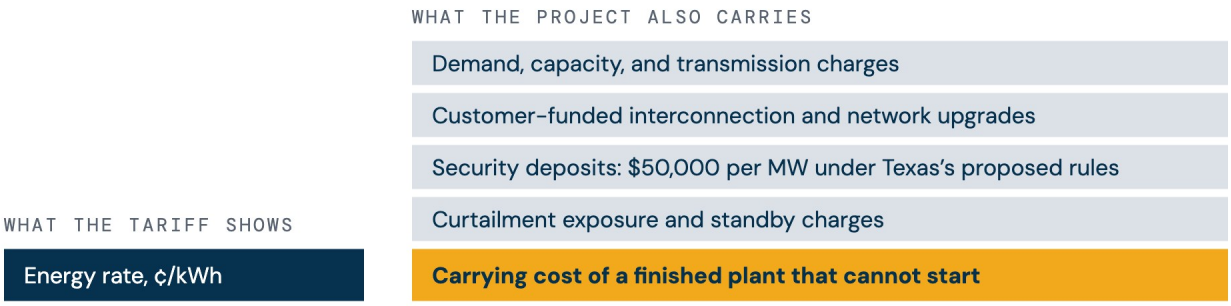
Utility reliability is counted in customer outage minutes. A process plant experiences it as trips. A voltage sag lasting a fraction of a second, too brief to register as an outage, can drop variable-frequency drives, motor contactors, and compressor controls — and a plant-wide trip can mean depressurizing, flaring, off-spec product, and a restart measured in days.

- **Two feeds are not two sources.** Circuits that share a corridor, a substation, or an upstream breaker share their failure modes.
- **Restoration follows the utility's priorities.** Crews restore by system need, not by what an hour of downtime costs the plant.
- **Curtailment is becoming a condition of service.** New large-load rules let grid operators direct big loads to curtail or switch to backup in emergencies.
- **The next train restarts the queue.** An expansion that outgrows the original service can trigger a new round of studies and upgrades.

ONE PUBLIC EXAMPLE

Freeport LNG, one of the few U.S. export plants whose liquefaction compressors run on grid electricity, has told Texas regulators that all three of its trains tripped "due to an incoming power feed interruption" — in November 2024 and again in July 2026, among other power-related outages. Each time, feed gas fell to a fraction of normal and recovery took one to several days.

WAITING FOR POWER HAS A COST



Illustrative; not to scale. Charges and terms vary by utility, tariff, and market.

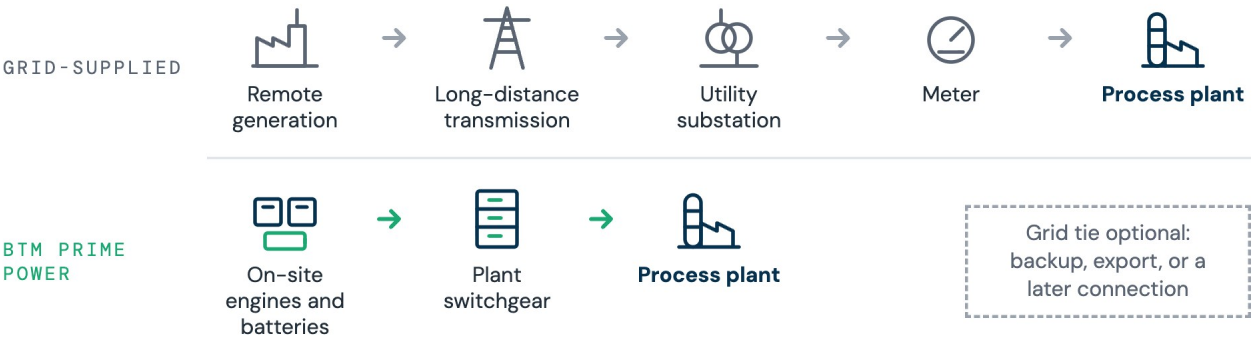
THE TAKEAWAY

The right comparison is not the utility's energy rate against the cost of on-site generation. It is the total cost and risk of having dependable power on the date production is supposed to begin.

07 / THE ALTERNATIVE

Dedicated power, engineered around the process

Behind-the-meter (BTM) power is generated on or next to the site, on the customer's side of the utility meter, instead of being delivered across the public grid. Process industries are not new to it: chemical plants, refineries, and paper mills host most of the nation's industrial combined heat and power, and the newest LNG terminals build their own power plants. What is changing is that **dedicated BTM plants are being built as the primary supply for new load**, not as backup.



Simplified one-line comparison. On-site generators can often connect at the plant's own medium-voltage distribution.

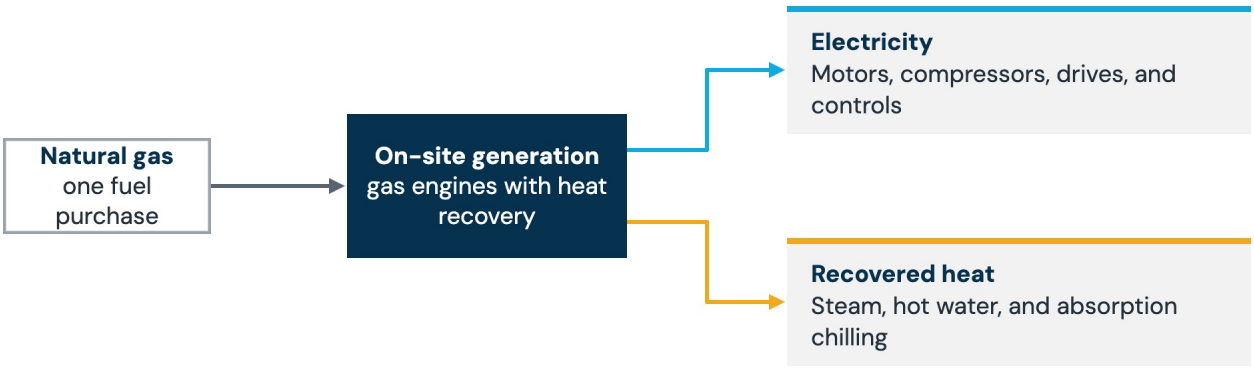
CONSIDERATION	GRID-SUPPLIED	BTM PRIME POWER
First power	Set by utility studies, upgrades, and equipment queues	Built on the plant's own schedule
Capacity	Shared network; new load can trigger upgrades	Dedicated to the plant; added in blocks as trains come online
Power quality	Exposed to faults and sags elsewhere on the system	Designed around the plant's own drives and rectifiers
Restoration	Follows the utility's priorities	On-site black start and a rehearsed restart plan
Heat	Steam raised separately in boilers	Recovered engine heat can offset boiler fuel
Capital	Customer funds interconnection and upgrades	Under an energy supply agreement, the provider funds generation
Trade-offs	No on-site emissions, fuel logistics, or generation staff	An air permit, NOx controls such as SCR, gas supply, and redundancy carried on site

THE TAKEAWAY

On-site power does not eliminate risk. It changes which risks the project controls, and it moves the power schedule inside the project plan.

Process plants buy more than electricity

A refinery or chemical plant also buys steam, hot water, and cooling — often from boilers burning the same natural gas an on-site power plant would. Capturing the heat a generator would otherwise reject turns one fuel purchase into two products: **combined heat and power typically reaches 65–80% total efficiency, against 50–55% for grid power plus separate boilers** (EPA). The value is site-specific. The heat has to match the process in temperature, pressure, quantity, and timing.



Illustrative. Recoverable heat depends on the generation technology and on whether the process can use it at the temperature it arrives.

THERE IS NO SINGLE BTM DESIGN



Grid-parallel

Grid and on-site generation share the load. Fits sites where the grid is available but too small, too slow, or worth keeping; adds protection and interconnection work.



Islanded

On-site generation carries the whole plant. Fits remote or severely constrained sites; the plant's own system must hold all of the redundancy.



Bridge to grid

On-site power starts the plant now. When the utility connection arrives, generation can shift to backup, peak support, or another site.



Integrated energy system

Engines, battery storage, and heat recovery designed together around the plant's largest loads and its steam balance.

Technology follows the plant: a 20 MW gas plant expansion, a 150 MW chemical complex, and an electric LNG train call for different mixes of engines, turbines, storage, and reactive-power support.

09 / THE ATLAS APPROACH

A faster path to power — and a partner who keeps it on

Atlas Energy Solutions develops behind-the-meter power as an integrated service, working with customers across five stages — **Scope, Design, Contract, Build, and Operate**. The stage that matters most once a process plant is running is the last one: Atlas is a long-term **operator**, and treats reliable, dedicated power as the product it delivers. Atlas does not sell generators. We engineer, finance, build, own, and operate the power plant, and the process plant buys the electricity it produces at a contracted rate. The customer runs its process; we run the power.

01	02	03	04	05
Scope	**Design**	**Contract**	**Build**	**Operate**

For a process plant, power isn't a utility bill — it's the compressors, the cooling water, and the restart plan. So the operating model is built around keeping it on:

- **Dedicated, on-site generation.** Power is generated for the plant and sized to its load, so the process isn't competing with other users or exposed to events elsewhere on the grid.
- **Built for the process load signature.** Modular natural gas engines paired with battery storage, configured around the largest motor start, the restart sequence, and the plant's expansion phases — with heat recovery where the process can use it.
- **Redundancy designed in, not borrowed from the grid.** N+1 or 2N spare capacity so that no single unit, service window, or failure takes the site down.
- **Proactive, condition-based maintenance.** Equipment is serviced one unit at a time on a planned schedule rather than run to failure — the approach designed to keep availability high over the decades-long life of a process plant.
- **Dedicated staffing and 24/7 remote monitoring.** Around-the-clock monitoring, fuel supply and scheduling, and on-site response are part of the service rather than a staffing problem handed to the customer.
- **Grid-ready by design.** Plants are built to the interconnection standard from the start, so a future grid tie is a commissioning step, not a rebuild.

The commercial side is designed to match. Through an **Energy Supply Agreement (ESA)**, a customer can access power through a service-based commercial structure rather than owning and operating the generation assets itself. Power becomes a predictable operating expense rather than a capital project — a structure designed to **take the capital-expense burden off the customer's balance sheet**, while the responsibility for uptime stays with Atlas. The customer runs its plant; Atlas runs the power.

PUTTING IT TOGETHER

A few things about process plants and power hold up regardless of industry, technology, or market cycle:

- **Process plants are motive-power systems.** Motors use more than 80% of a typical refinery's electricity, and a power event lasting seconds can cost days of production.
- **Megawatts don't define the system.** Drive selection, the steam balance, the largest motor start, and the restart sequence matter as much as average demand.
- **Power is becoming the schedule.** Large-load queues, multi-year transformer lead times, and new large-load rules mean the utility connection can arrive after the plant.
- **On-site power can be engineered to the process.** Dedicated generation with batteries and heat recovery can meet the load on the plant's timeline, with the grid kept as an option.
- **The trade-offs are real.** On-site generation carries an air permit, NOx controls, gas supply, and its own redundancy — choices to make early, not afterthoughts.

SIX QUESTIONS TO ASK BEFORE CHOOSING A POWER PATH

01 What are the normal, peak, and minimum stable loads — and how big is the largest motor?

02 How are the main compressors driven today, and could that change over the plant's life?

03 How much steam, hot water, or chilling does the site buy or make, and at what conditions?

04 Which loads must never lose power, and what does a plant-wide trip actually cost?

05 When are construction, commissioning, and full power needed — and when can the utility firmly deliver?

06 Is gas available at the needed pressure and volume, and what air-permit path applies?

THE IDEA IN ONE LINE

You can't separate a process plant from its power. Behind every refinery unit, LNG train, and chemical reactor is a load that is large, continuous, and unforgiving of interruption — and on-site, behind-the-meter generation is one of the few ways to deliver it on the plant's schedule. Atlas builds, owns, and operates that power — and stands behind keeping it on — so its customers don't have to.

Named U.S. projects and where they stand

Stage: permit · FID · build ● Complete ◐ In progress ○ Not yet or not reported

PROJECT	LOCATION	SCALE	STAGE	ONLINE	EST. MW
LNG EXPORT					
Golden Pass LNG QatarEnergy, ExxonMobil	Sabine Pass, TX	18 Mt/yr, 3 trains	●●●	2026–27	**180–360** T
Rio Grande LNG NextDecade	Brownsville, TX	30 Mt/yr, 5 trains	●●●	2027–31	**300–600** T
Port Arthur LNG Sempra	Port Arthur, TX	27 Mt/yr, 4 trains	●●●	2027–31	**270–540** T
CP2 LNG Venture Global	Cameron Par., LA	28 Mt/yr, 2 phases	●●●	2027–28	**~1,470** P
Louisiana LNG Woodside	Calcasieu Par., LA	16.5 Mt/yr, 3 trains	●●●	2029–31	**~430** P
Commonwealth LNG Caturus	Cameron Par., LA	9.5 Mt/yr, 6 trains	●●◐	2029–30	**95–190** T
CHEMICALS & PETROCHEMICALS					
Golden Triangle Polymers CPChem, QatarEnergy	Orange, TX	2.1 Mt/yr ethylene; $8.5B	●●●	Late 2026–27	**100–200** C
Plaquemine expansion Shintech (Shin-Etsu)	Plaquemine, LA	Ethylene, chlor-alkali; $3.4B	◐●○	2030 (phase 1)	**100–150** C
Bay City expansion OXEA, with Air Liquide	Bay City, TX	Oxo alcohols; on-site syngas	◐●◐	End of 2028	**10–30** C
AMMONIA					
Blue Point One CF Industries, JERA, Mitsui	Ascension Par., LA	1.4 Mt/yr; $3.7B	●●●	2029	**75–150** C
Beaumont New Ammonia Woodside	Beaumont, TX	1.1 Mt/yr	●●●	2026, commissioning	**30–60** C
GAS PROCESSING & NGL					
Five Delaware plants Targa Resources	Permian, TX/NM	1.37 Bcf/d in total	●●●	2027–28	**135–205** R
Plants 11 and 13 Enterprise Products	Permian, TX/NM	2 × 300 MMcf/d	◐●◐	2028–29	**60–90** R
REFINING					
America First Refining AFR, with Reliance	Brownsville, TX	~165,000 b/d light crude	○○○	Not yet published	**40–70** R

Est. MW: *planning estimate of average demand at full build-out, not a design value.* ***T*** *gas-turbine-driven liquefaction, auxiliaries only (~10–20 MW per Mt/yr);* ***P*** *published on-site power plant;* ***R*** *rules of thumb, page 7;* ***C*** *sum of major units. Compiled from company releases, EIA, Argus, and trade press through October 2026; dates are developers' targets. Not every project proceeds: Air Products cancelled its Louisiana Clean Energy Complex in June 2026.*

SOURCES

Figures are drawn from the public sources below and are planning-grade; ranges vary by site, process, and market. Project details reflect public reporting through October 2026.

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About this document. *This is an educational overview intended for general information. Figures are planning-grade ranges compiled from publicly available sources — including federal agency data, grid-operator and regulatory filings, industry association guidance, company announcements, and trade press — and may change over time. Power demand varies by process, scale, drive selection, steam balance, and site; ranges are representative, not exact for any single facility. Project details reflect public reporting and developers' own targets as of October 2026. Charts are illustrative. Summaries of standards and regulations are simplified and are not legal advice. Nothing here is a commitment, offer, guarantee of performance, or professional advice. Any specific project would be evaluated on its own facts.*