



ERCOT Batch 1+ and CTP Workshop #2

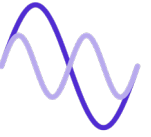
PCLR Market Design Initiatives

Sam Brandin | sbrandin@agentiveinfra.com

September 24, 2026

For discussion purposes

Four proposals for efficient load growth



Private project investments and Batch / CTP advance together without inextricable links that create inefficiencies for central planning and private capital

1 Independent PCLR entry through GINR Queue

Advance projects on individual timelines while CTP and Batch study develops the path to firm service

ERCOT alignment

Consistent with ERCOT treatment for all other dispatchable resources

2 Conditional PCLR Base Point compliance

Impose minimally sufficient operating obligations on dispatchable loads until reliability requires curtailment for maximum participation

Consistent with existing ERCOT operating practices today (IRR SBBH)

3 Load Sponsored Generation (LSG)

Attribute studied incremental firm deliverability from new generation to sponsor loads first

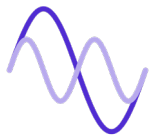
Consistent with and expands the “PUN+” concept ERCOT proposed in Batch Zero

4 PCLR in Netted Networks

Give ERCOT Resource visibility and enable ESR WSL treatment when co-located with firm load or PCLR

Supports ERCOT’s Netted Networks effort

High level goal: Do more with less



Efficient planning processes create a more sustainable ecosystem for growth

Limited growth

Cost in



Societal value out



Idle economy
High opportunity cost

Inefficient spending

Cost in



Societal value out



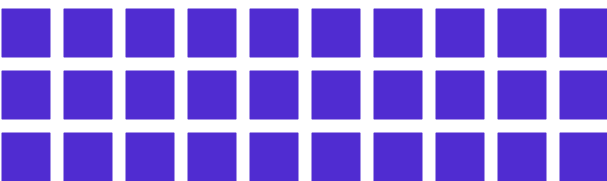
High cost, little benefit
Unsustainable

Efficient growth

Cost in

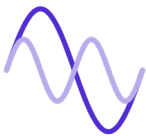


Societal value out



Greatest economic benefit
Most sustainable outcome

Transmission investment and load utilization today



We plan to spend 3.5x on transmission in the next 6 years relative to historical trend
Large loads today use less than half of their approved firm service

ERCOT large-load utilization

June 2026 (MW)



North Central utilization

September 2026 groups (MW)



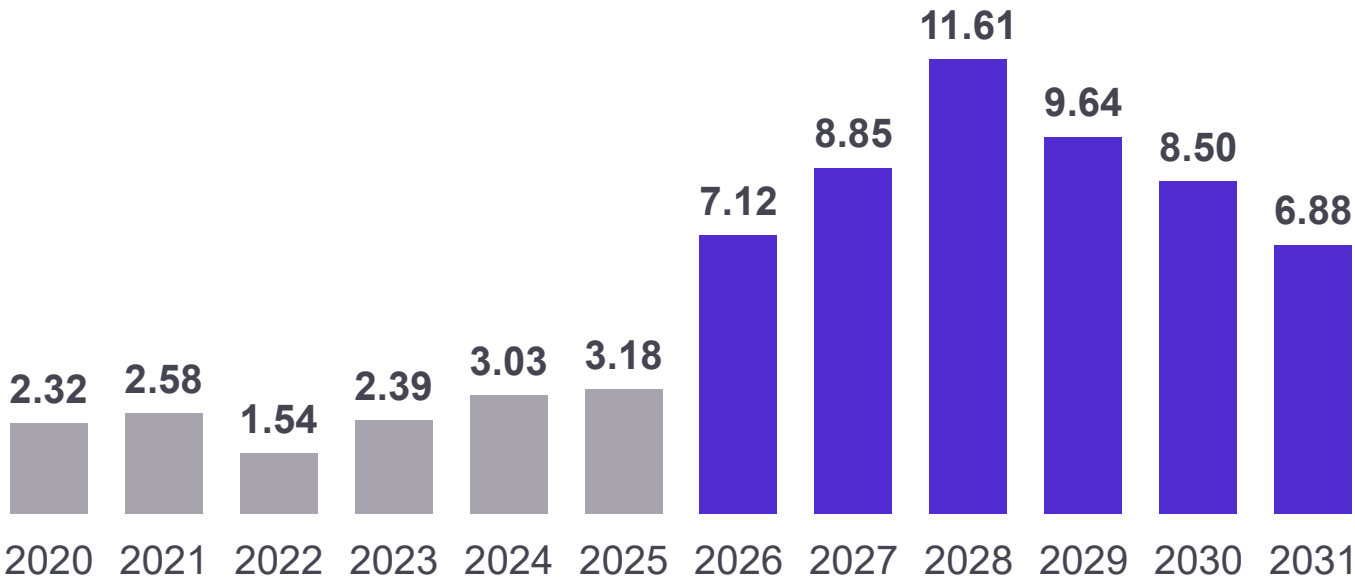
Historical annual average
2020–2025

\$2.51B / year

July 2026 TPIT annual average
2026–2031 outlook

\$8.77B / year

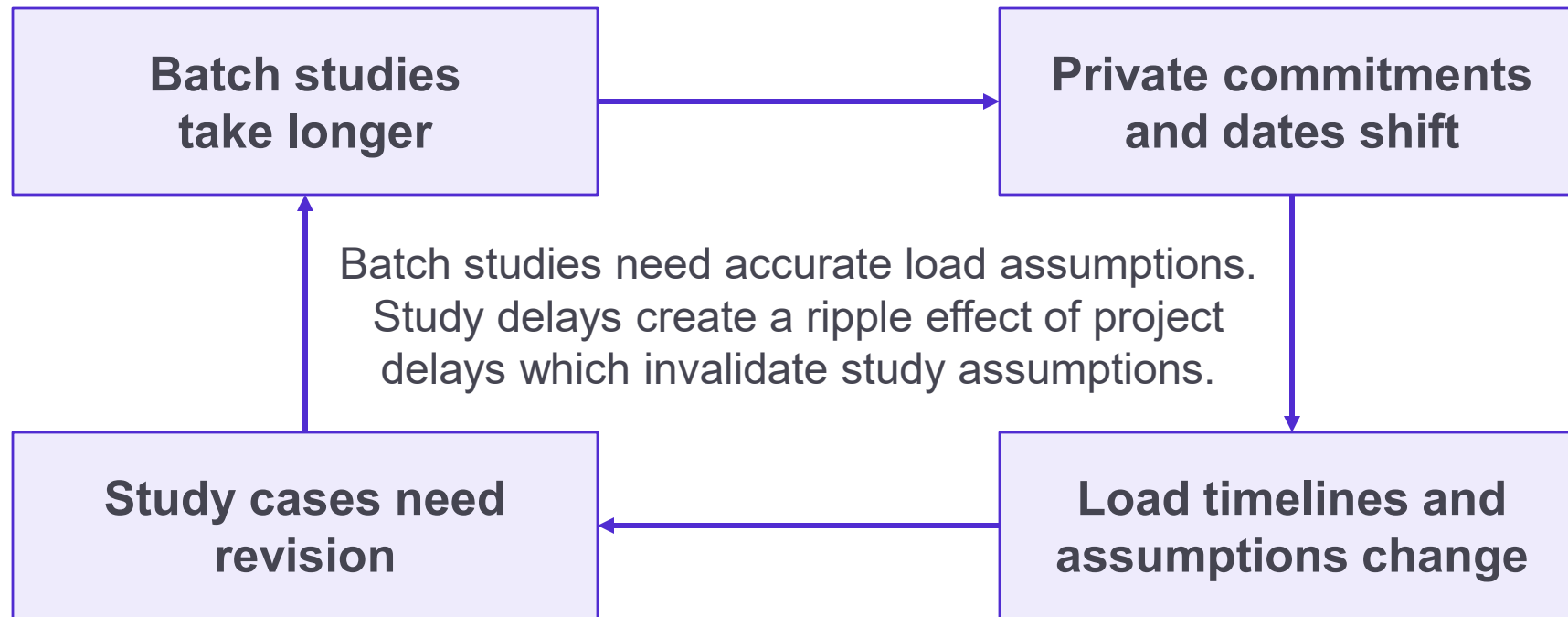
Transmission project cost by energization year (\$B)





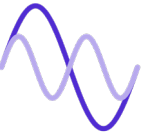
Problem: PCLR interconnection gated by Batch

Private development tied to centrally planned and administered processes creates a self-reinforcing cycle of delays and process inefficiency.

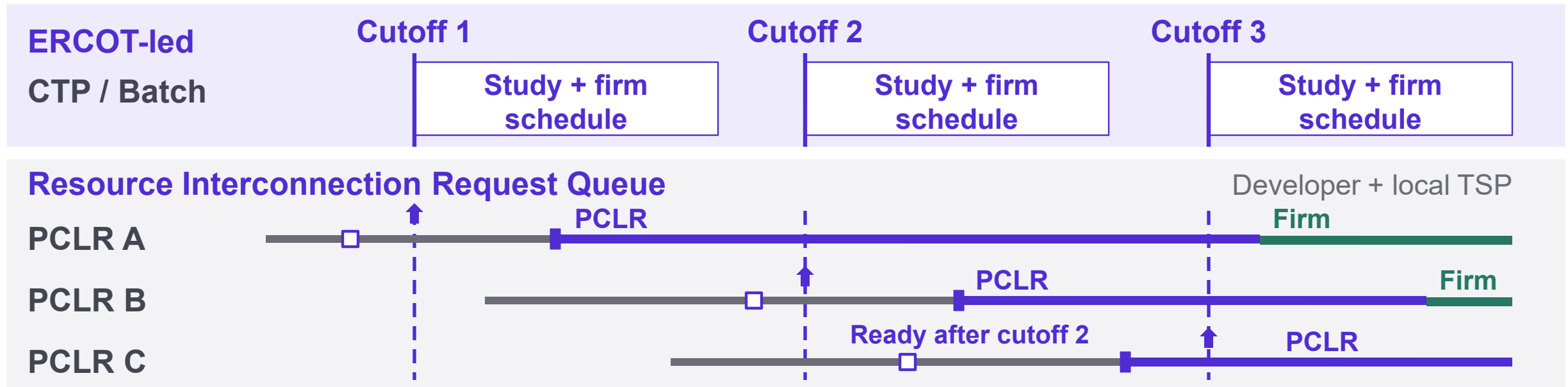


Investors bearing private risk should retain some control of project timelines. First-come, first-served utility planning should not dictate commercial outcomes.

Solution: PCLR interconnection through GINR



Annual CTP / Batch processes set firm-delivery cadence.
PCLR interconnection allows each project to advance on its own timeline.



Meet readiness by the cutoff to enter an annual Batch. Missed deadlines don't delay project energization

Loads gain a clear energization path

Private activity advances on an individual project timeline, independent of the central planning calendar.

TSPs + ERCOT gain process and study certainty

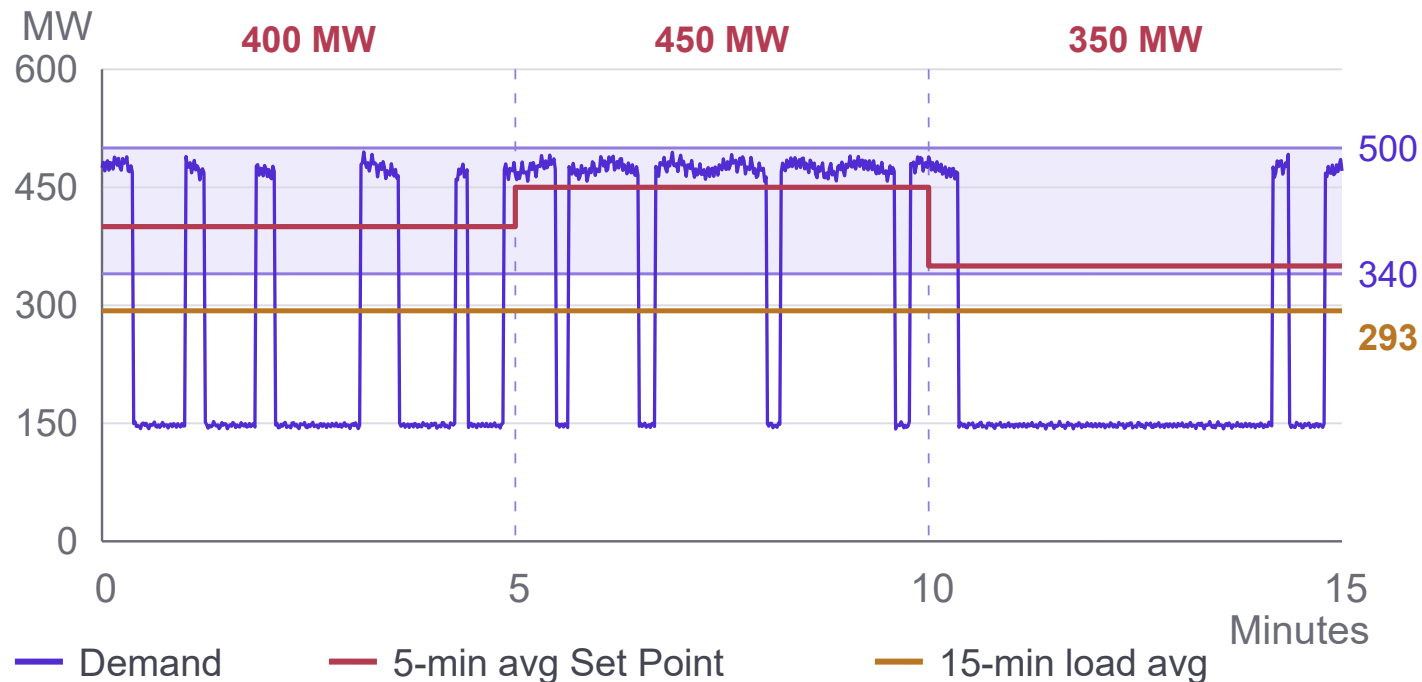
Private risk-taking and operating flexibility support efficient network upgrades and tractable planning studies.

Problem: PCLR Base Point compliance



AI data center load can respond to grid reliability needs, but strict dispatch obligations can be challenging and costly to satisfy which limits PCLR adoption.

500 MW PCLR · 3 five-minute SCED intervals



Under consumption of PCLR in this example would result in basepoint deviation changes.

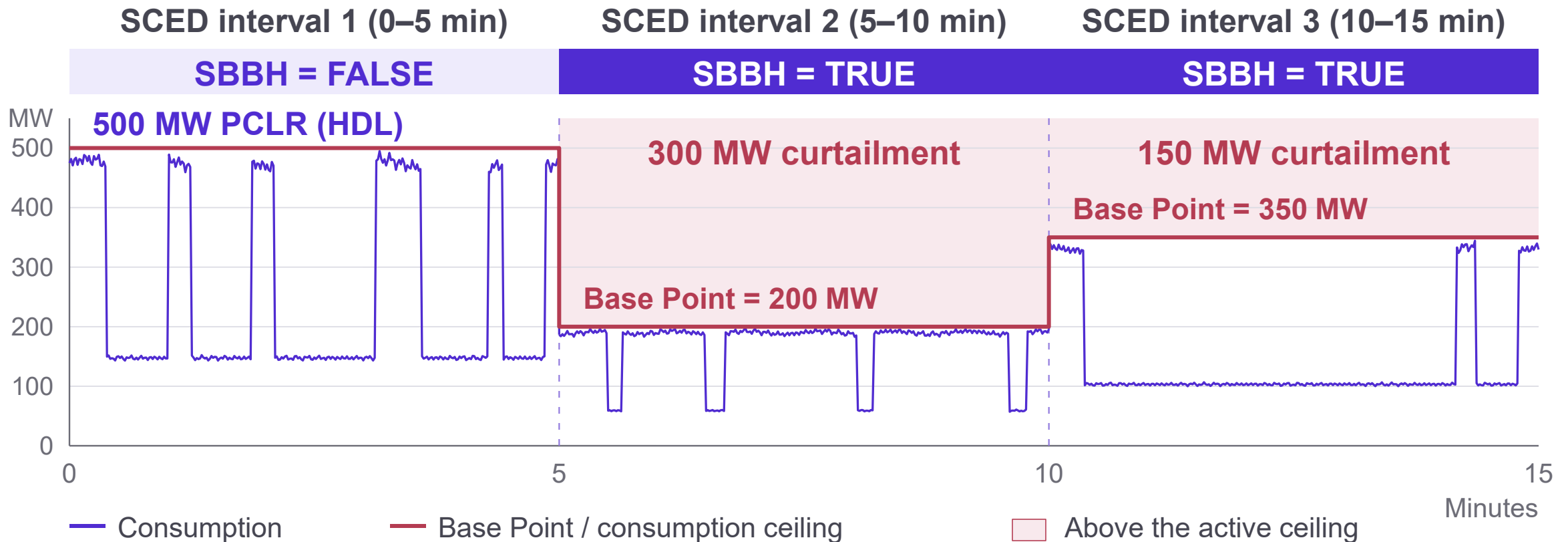
PCLR should only be beholden to maintaining basepoint when responding to curtailment conditions.

This ensures maximum load participation as a resource while ERCOT retains core reliability attributes of SCED dispatchable load.

Solution: conditional PCLR Base Point compliance

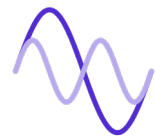


PCLRs can adopt a framework similar to the IRR SBBH flag in use today.
Base Point following applies only when SBBH = TRUE in Real-Time operations.

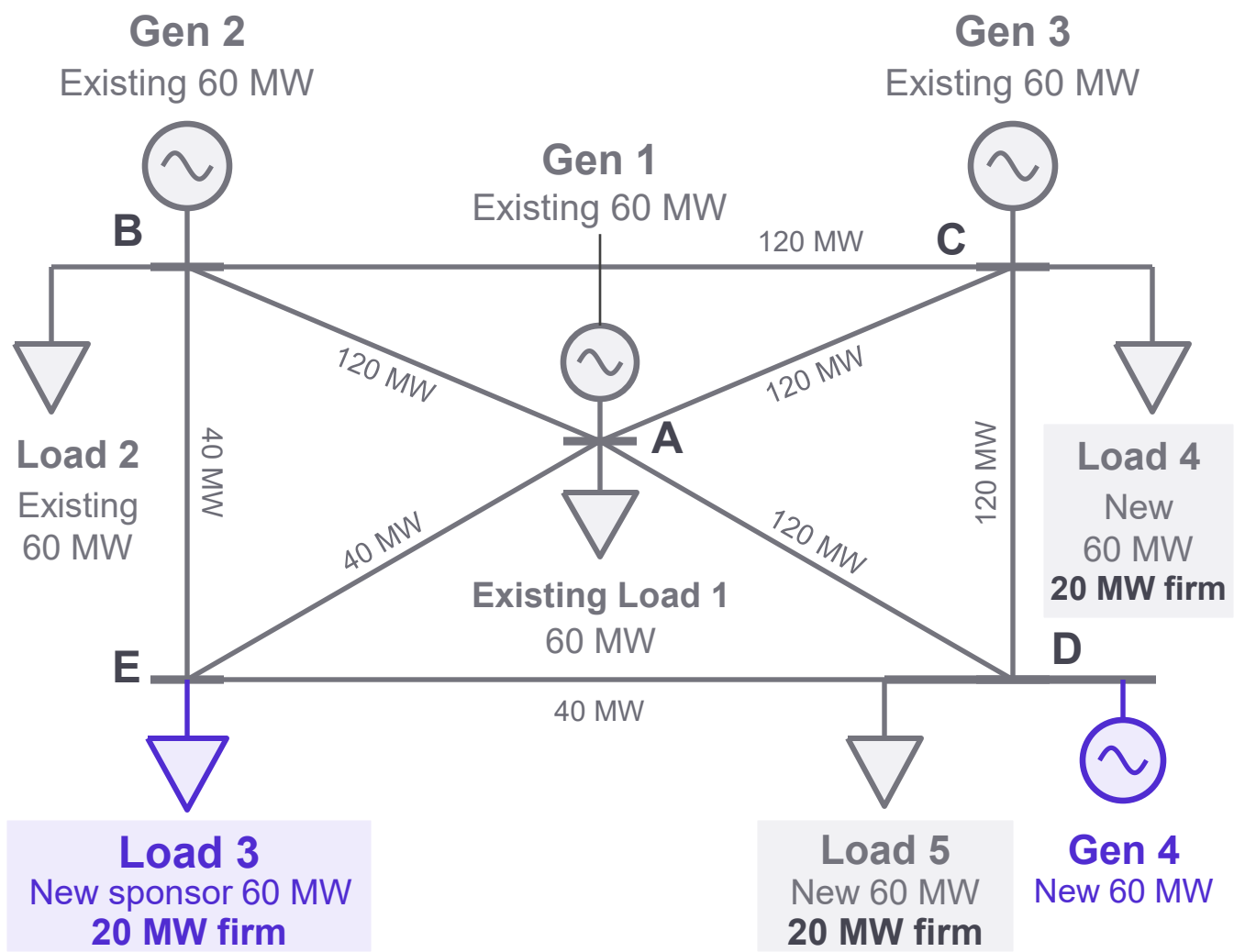


Proposed deviation penalties apply only when consumption exceeds Base Point during curtailment.

Problem: sponsor-funded deliverability is socialized



180 MW firm under G-1 + N-1 and N-2



Load 3 funds the new Gen 4.

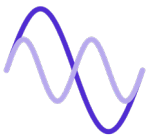
Its 60 MW firm increment is shared evenly across all three new loads.

Load	Size	Base	Added	Firm	PCLR / wait
1 Existing	60	60	0	60	0
2 Existing	60	60	0	60	0
3 New sponsor	60	0	20	20	40
4 New	60	0	20	20	40
5 New	60	0	20	20	40
Total MW	300	120	60	180	120

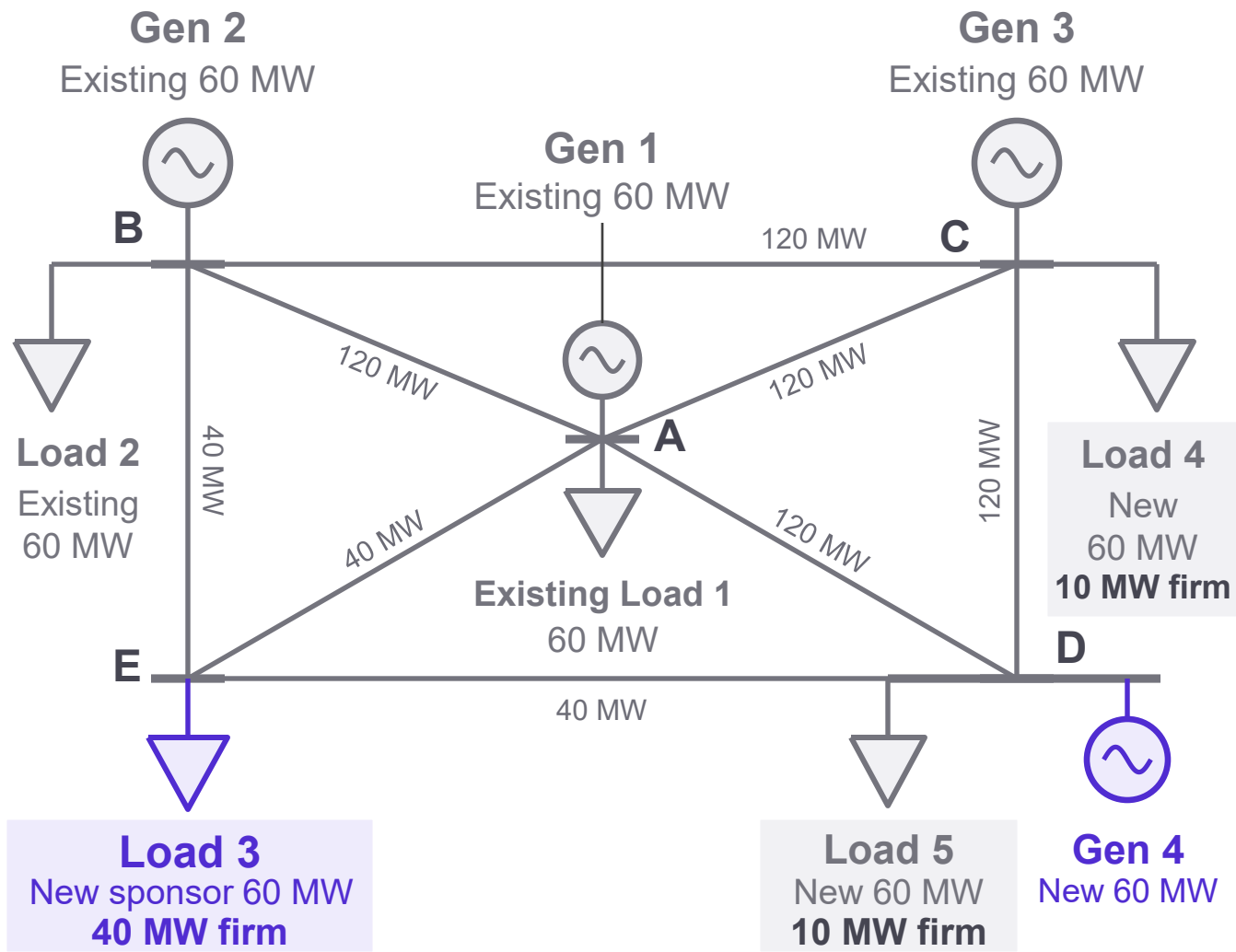
20 MW each

The sponsor takes the investment risk without attribution priority.

Solution: sponsor first, then socialize the residual



180 MW firm under G-1 + N-1 and N-2



1 Attribute firm MW to the sponsor first

Topology and firm-service criteria limit this sponsor to 40 MW in this example.

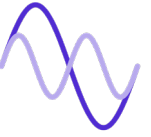
2 Socialize the remaining 20 MW

Load	Size	Base	Added	Firm	PCLR / wait
1 Existing	60	60	0	60	0
2 Existing	60	60	0	60	0
3 New sponsor	60	0	40	40	20
4 New	60	0	10	10	50
5 New	60	0	10	10	50
Total MW	300	120	60	180	120

Linked load and generation commitments reduce CTP planning uncertainty and increase commercial structuring flexibility.

FTM grid connections support SCED and RUC.

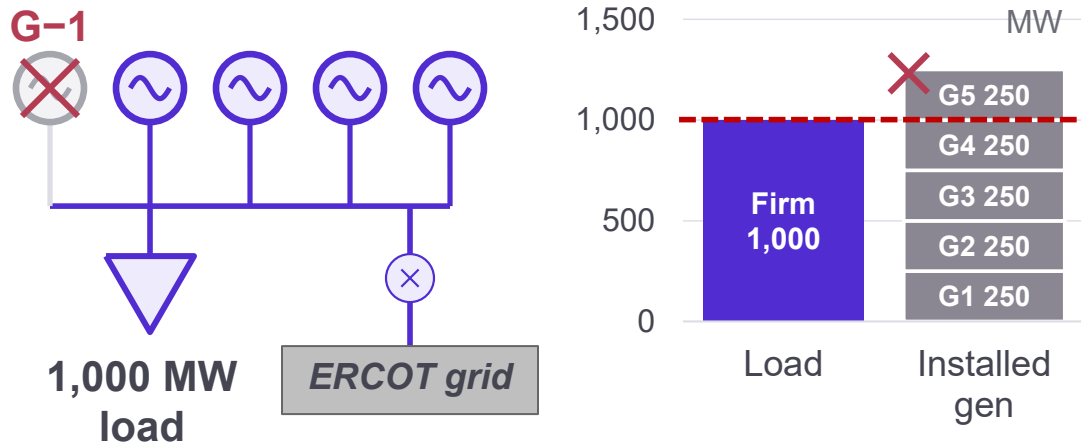
LSG is an extension of the PUN+ ERCOT Proposal



Under the PUN+ proposal, joint studies determine firm support from co-located generation or ESRs.

Full load can be firm

Normal: $5 \times 250 \text{ MW} = 1,250 \text{ MW}$

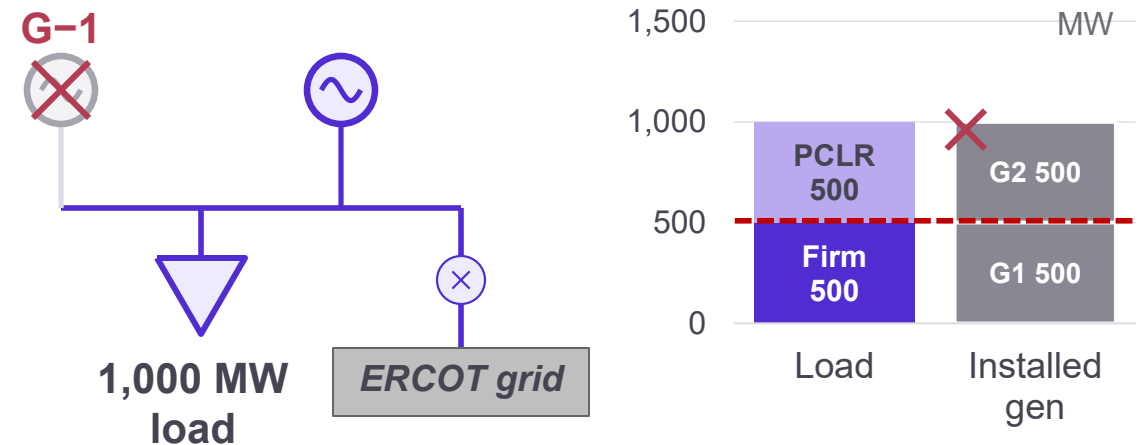


$4 \times 250 \text{ MW} = 1,000 \text{ MW}$

1,000 MW firm through joint commissioning
GRs can be RUC'd via Netted Networks

Firm and PCLR portions

Normal: $2 \times 500 \text{ MW} = 1,000 \text{ MW}$



$1 \times 500 \text{ MW} = 500 \text{ MW}$

500 MW firm + 500 MW PCLR*

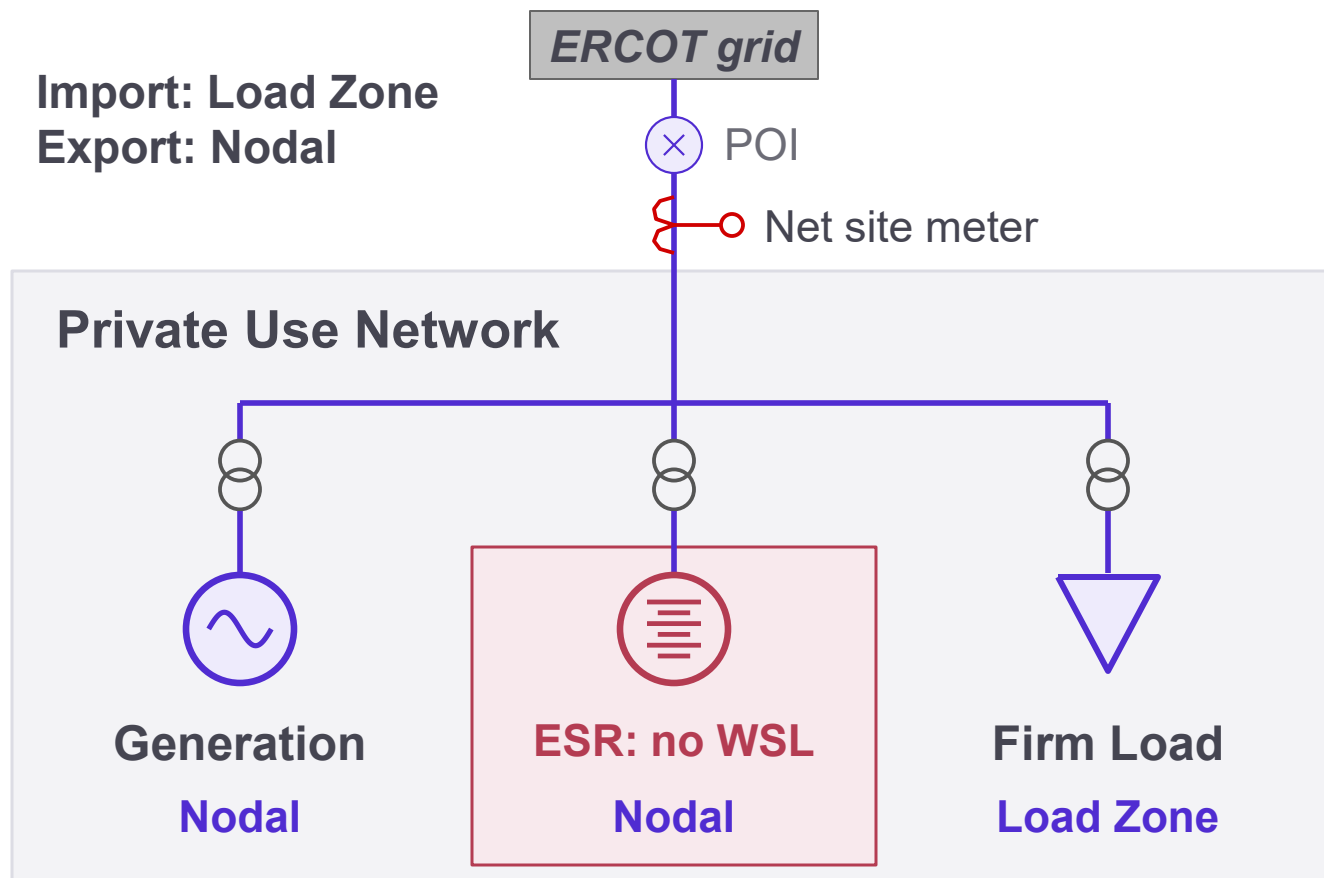
*Or defer 500 MW until firm upgrades are complete.

All concepts above should also apply to ESR after accounting for ELCC adjustments

Problem: PUN visibility and ESR limitations



Loss of WSL treatment economically excludes BESS from PUN configurations.



Economic exclusion of BESS

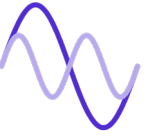
Loss of WSL treatment makes co-located BESS economically untenable in a PUN.

Limited ERCOT visibility

Net offers hide gross generation and storage capability from market and RUC processes.

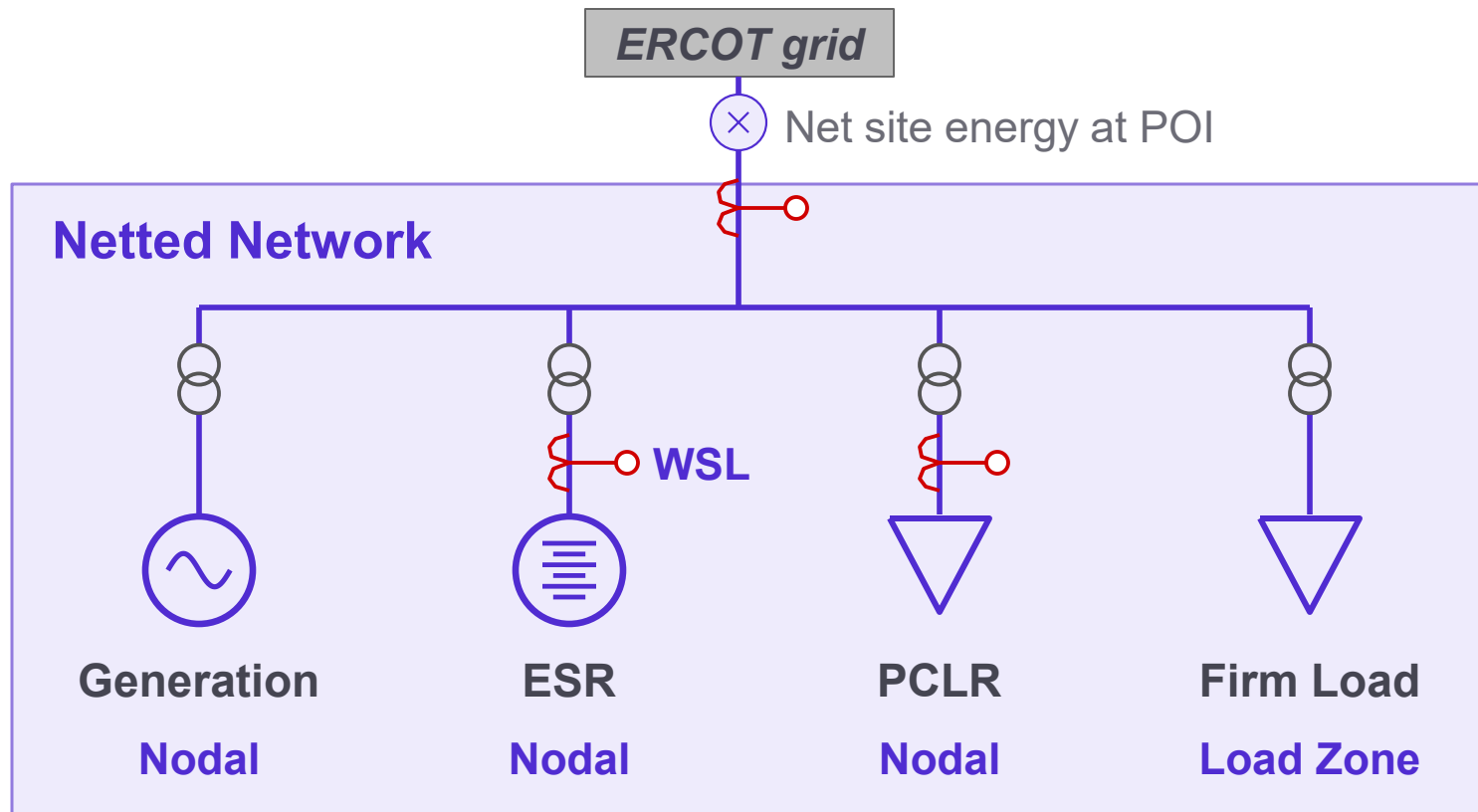
Netted Networks can unlock more BTM asset combinations.

Solution: Netted Networks (+ PCLR)



ERCOT visibility, RUC access and WSL for co-located ESRs.

Gross Resource offers, telemetry and load



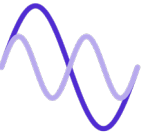
Visibility and RUC

Gross offers and telemetry support SCED and RUC. ERCOT can RUC eligible Resources.

ESR WSL + PCLR Inclusion

ESRs co-located with PCLR retain WSL treatment for qualifying charging.

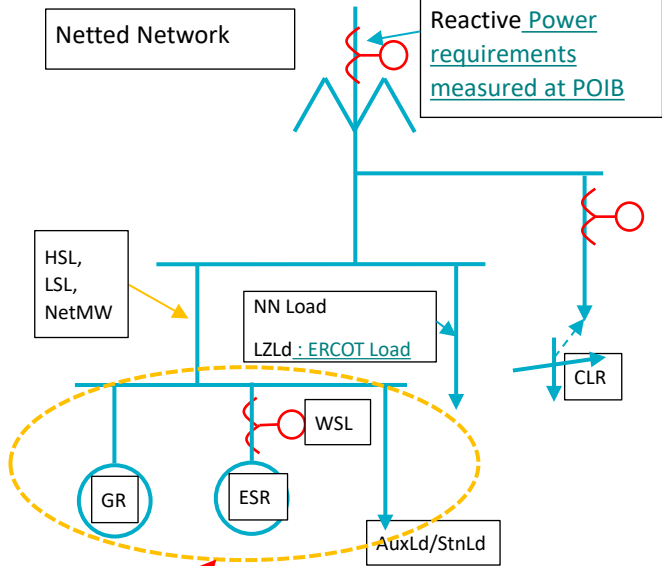
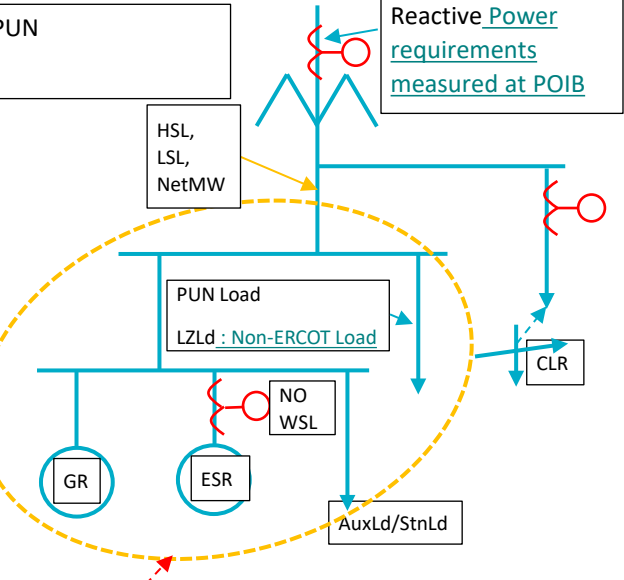
Four proposals for efficient growth



This model can align all WLPUN, BYOG and PCLR objectives into a single framework:

- **CTP / Batch delivers firm service**
- **PCLR, LSG, Netted Networks provide private timeline certainty and optionality**

1	PCLR interconnection through GINR Queue	Independent project progress through GINR. Substantiated load for CTP.
2	Conditional PCLR operational dispatch requirements	Broader adoption of PCLR flexibility. ERCOT retains enforceable curtailment.
3	Load Sponsored Generation (LSG)	Attribution rewards private grid connected supply commitments.
4	PCLR in Netted Networks	Gross Resource visibility for ERCOT. ESR WSL and PCLR inclusion.



Conceptual Batch Zero BYOG operating configurations for Large Load interconnection³

⊗ Point of interconnection (POI)

Configurations			
	Business as Usual (BAU)	PUN+	Batch Self-Limiting Facility (SLF)
Description	Load and generation are connected at separate POIs (shown) or behind the same POI and interact through the transmission system under existing interconnection framework	Load is supported by dispatchable on-site generation such that $G-1 \geq \text{load}$ and treated as firm, with reliability managed through ERCOT operational actions	Site operates with a fixed transmission withdrawal limit determined through batch study
Details	• Generation and load are studied separately • Generation is only included in the LLIS if it meets PG 6.9 criteria • Load deliverability depends on transmission capability and may be constrained through the current study process • Transmission upgrades from batch study based on G-1+N-1 analysis	• Configuration satisfies $G-1 \geq \text{load}$ (loss of one generator still allows remaining units to serve the load) • Load is treated as firm • No planning or administrative limit at POI • No transmission upgrades from batch study since configuration is G-1 secure • In operations: - ERCOT may reject generator outages or require mitigation plans - ERCOT may RUC resources¹ - In real-time, mitigation plans or local load shed may be used	• Generation mix may include thermal resources, renewables, and batteries • A fixed transmission withdrawal limit is established (e.g., 100 MW grid import limit) determined in the batch study • ERCOT does not coordinate RUC¹ or outage management for the facility • The load and generation owners must coordinate operations to ensure grid imports never exceed the limit • The site would be equipped with a reverse power relay or equivalent protection to enforce the limit • Transmission upgrades required if identified by the batch study to meet reliability criteria²

1. RUC (Reliability Unit Commitment): ERCOT mechanism used to commit generation outside the market to maintain system reliability | 2. Based on batch study results for the generation/load mix
3. Conceptual designs still under internal review and may change | Source: ERCOT discussions