



Load Sponsored Generation (LSG)

Prepared for LLWG and ERCOT Batch Workshop

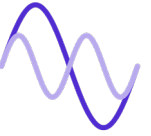
Deliverability attribution for loads sponsoring new grid connected generation

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October 15, 2026

For discussion purposes

Planning challenges and objectives



Planning Issues Today

Slow speed to grid connection

The complexity of firm transmission planning and the physical reality of transmission construction require longer lead times than costumers would like.

+ No direct firm service attribution

Sponsoring new grid-connected generation does not directly attribute its added deliverability to the sponsoring load, providing no incentive for new loads to contribute grid-connected FTM generation.

= Uncertain study assumptions and suboptimal system buildout

Batch Zero study assumptions may rely on unreliable new generation assumptions while incentivizing loads to build inefficient BTM generation or off-grid systems.

Planning Opportunities/Objectives

Speed to power with private risk



Give loads a clear framework for speed to power through privately assumed risk.

+ Firm service attribution from sponsored gen



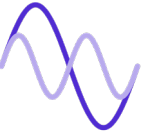
Enable and incentivize new loads to sponsor grid connected FTM generation.

= Improved study certainty, system efficiency, and risk allocation



Allow private activity to inform planning with the most reliable and efficient inputs while protecting system reliability through privately held risk.

Problem statement & proposed solution



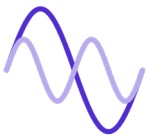
Problem / Existing Inefficiency

- System planning today does not associate a planned load's commercial sponsorship of new grid-connected generation with the attribution of firm service to the sponsor load.
- As a consequence, greater reliance on behind-the-meter generation can limit the shared system benefits gained from the economies of scale and independent siting for stand alone grid connected generation assets. This reduces system reliability and design efficiency.

Proposed solution: Load Sponsored Generation (LSG)

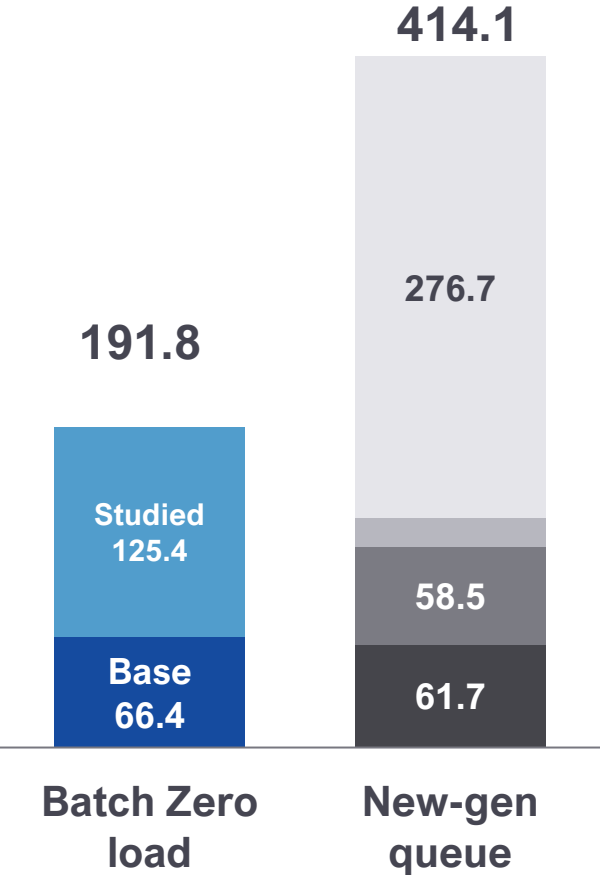
- Link commercial sponsorship of new generation resources to a conditional allocation of the generator's incremental firm deliverability to the sponsor load, before allocating residual deliverability to unaffiliated loads.
- Create a rational mechanism for including sponsored generation resources in batch load studies to encourage private commercial sponsorship in new efficient grid connected generation while improving batch planning assumptions.

Batch Zero load and generation in the queue



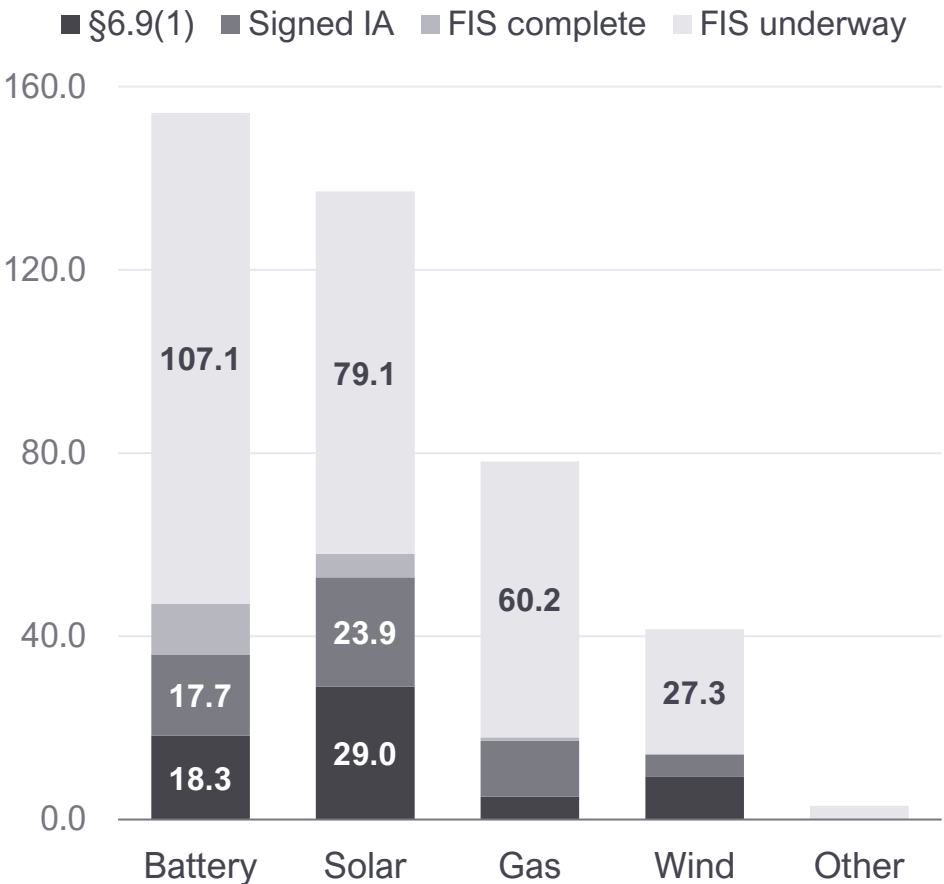
Batch Zero / new queue

Reported capacity, GW



New queue by resource type

September 2026 GIS, GW



PGRR127 Model inclusion

Standard entry: §6.9(1)

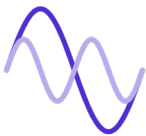
Required data, permits, water and interconnection commitments.

Supplemental sequence

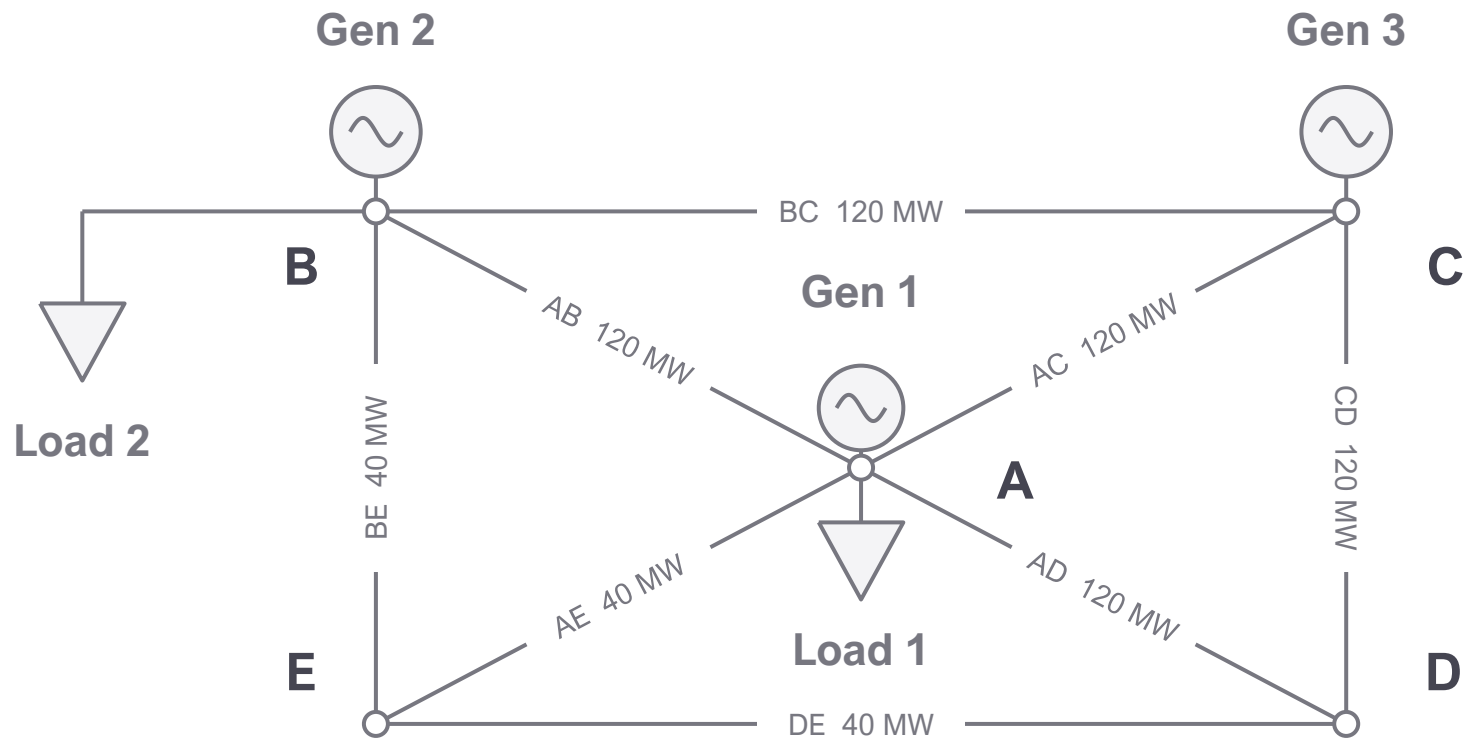
- (a) Planned: signed SGIA
- (b) Planned: FIS complete
- (c) Planned: FIS underway
 - i. Steady state + stability complete
 - ii. Steady state complete
 - iii. FIS started
- (d) Qualifying Inactive + stability complete
- (e) Outside the queue

ERCOT selects study additions.

Example grid: 120 MW of existing firm service

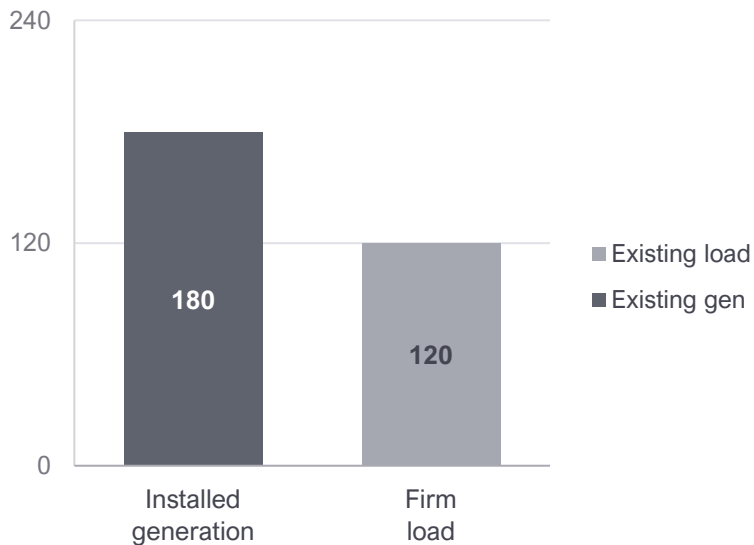


Three 60 MW generation units support two 60 MW loads through a G-1+N-1 and N-2 firm planning criteria*.



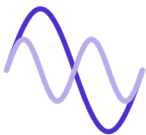
Gen 1 MW	Gen 2 MW	Gen 3 MW	Total MW
60	60	60	180

Load (MW)	Existing firm load	New requested load
Load 1	60	0
Load 2	60	0
Total load	120	0

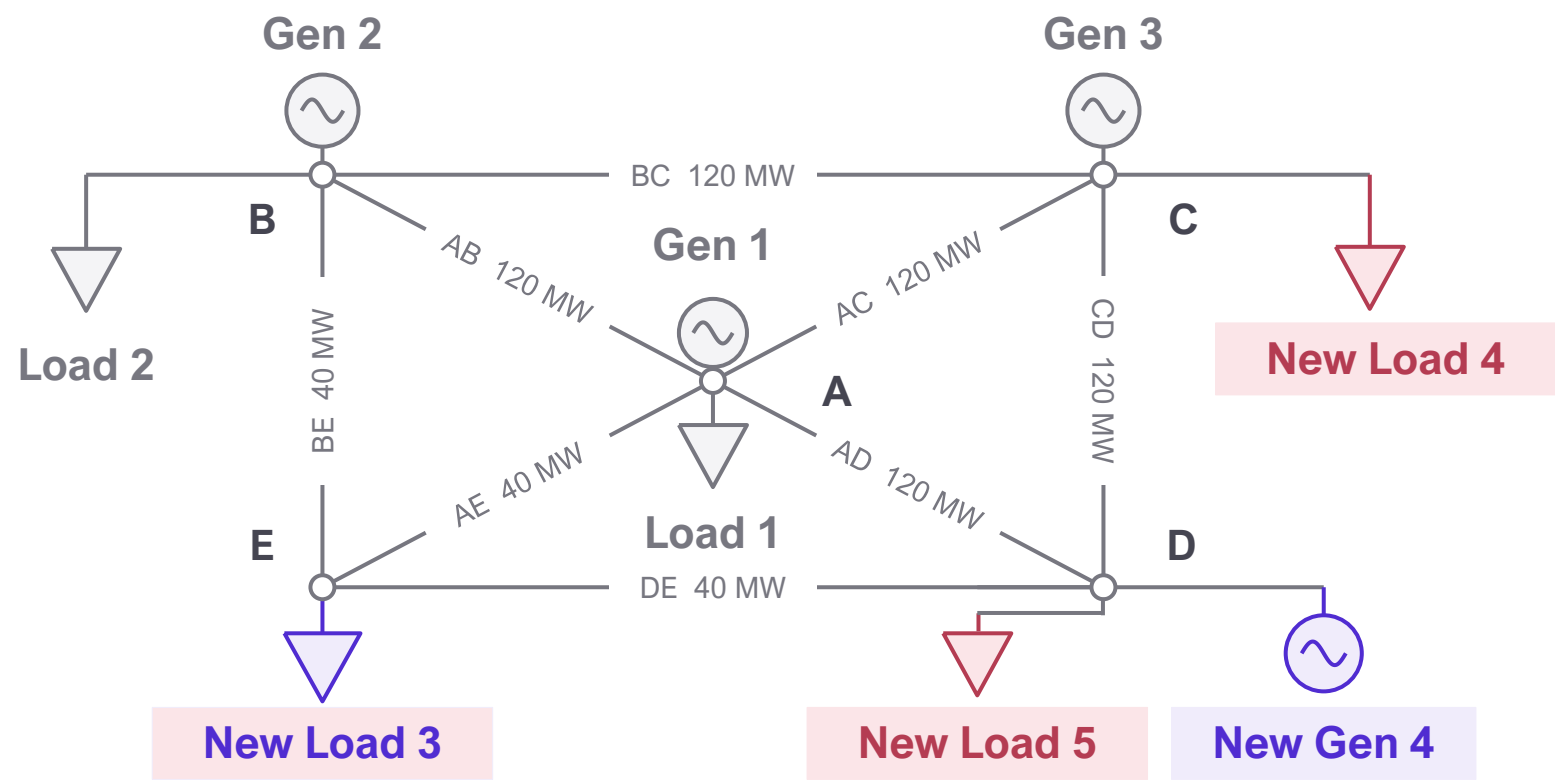


*G-1+N-1 and N-2 are used as a proxy for TPL and ERCOT PG firm planning standard in this deck

Planning today: No load attribution for generation sponsorship

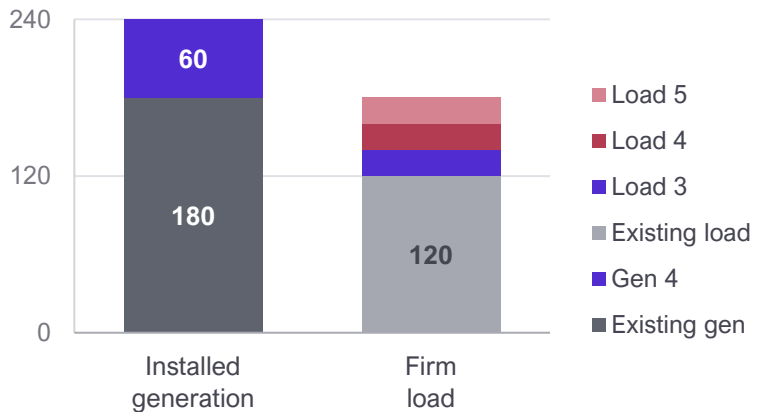


New Load 3 sponsors the build of New Gen 4. This generation asset creates new additional firm capability for the grid to serve new load. Existing planning practices today do not recognize commercial sponsorship and socializes incremental firm deliverability to all new loads.

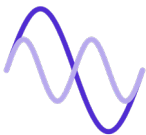


Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	Total MW
60	60	60	60	240

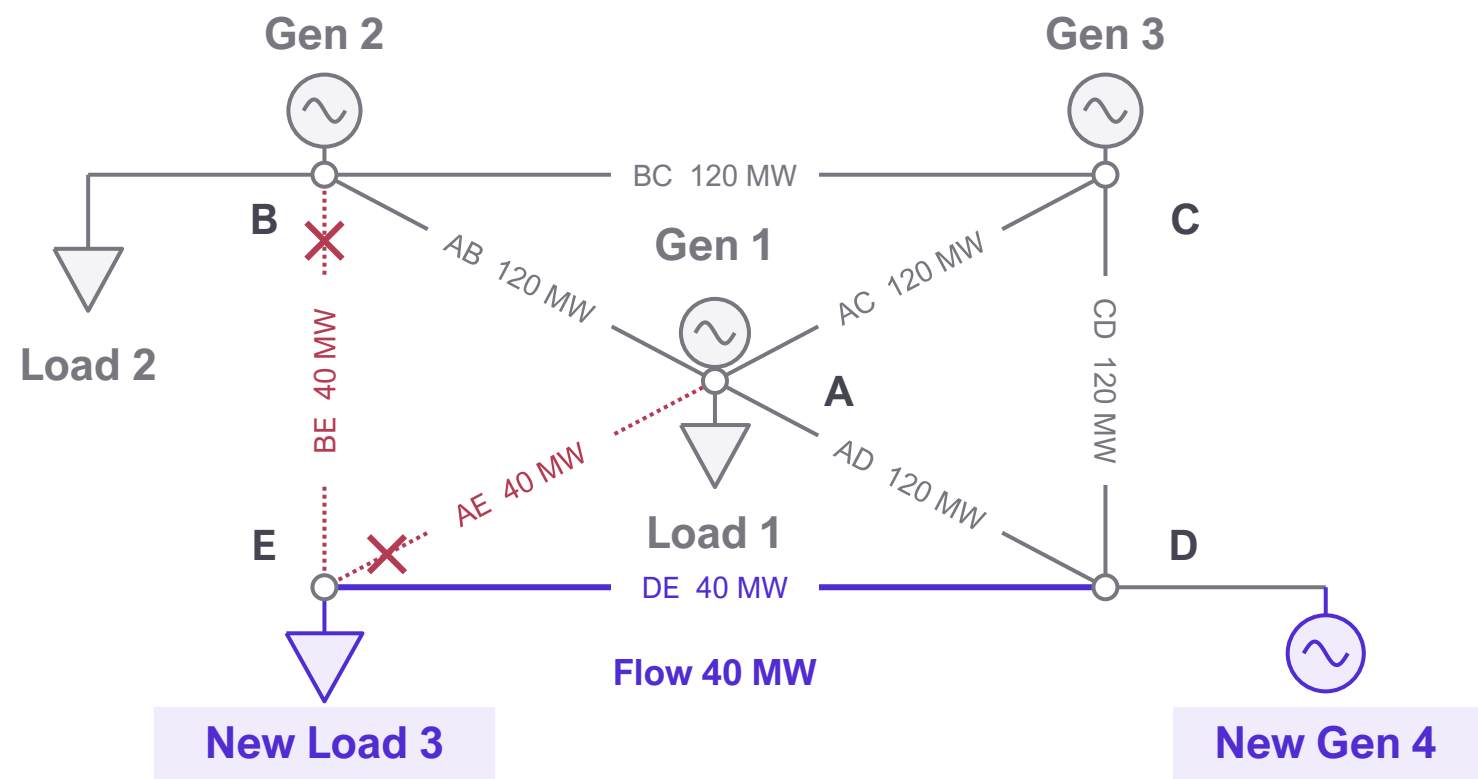
Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	20	40
New Load 4	0	60	20	40
New Load 5	0	60	20	40
Total load	120	180	60	120



LSG Step 1: attribute firm service to the sponsor load

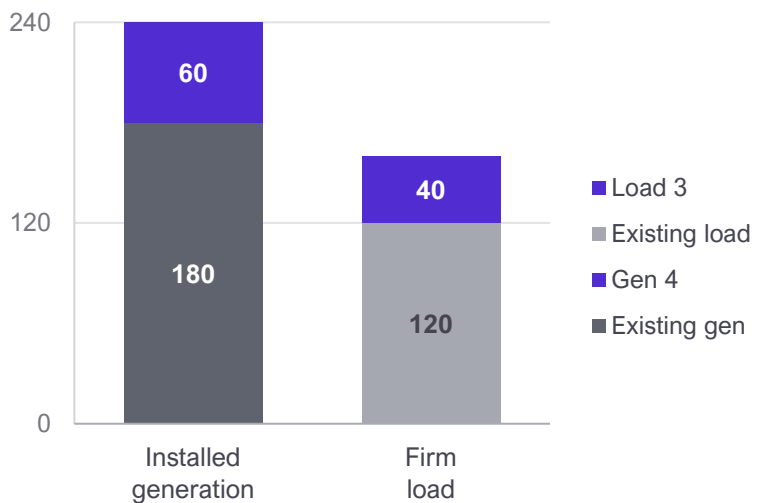


Gen 4 creates 40 MW of firm service which can be allocated to sponsor Load 3 under the required firm planning standards* and the system topology.



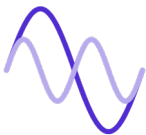
Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	Total MW
60	60	60	60	240

Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	40	20
Total load	120	60	40	20

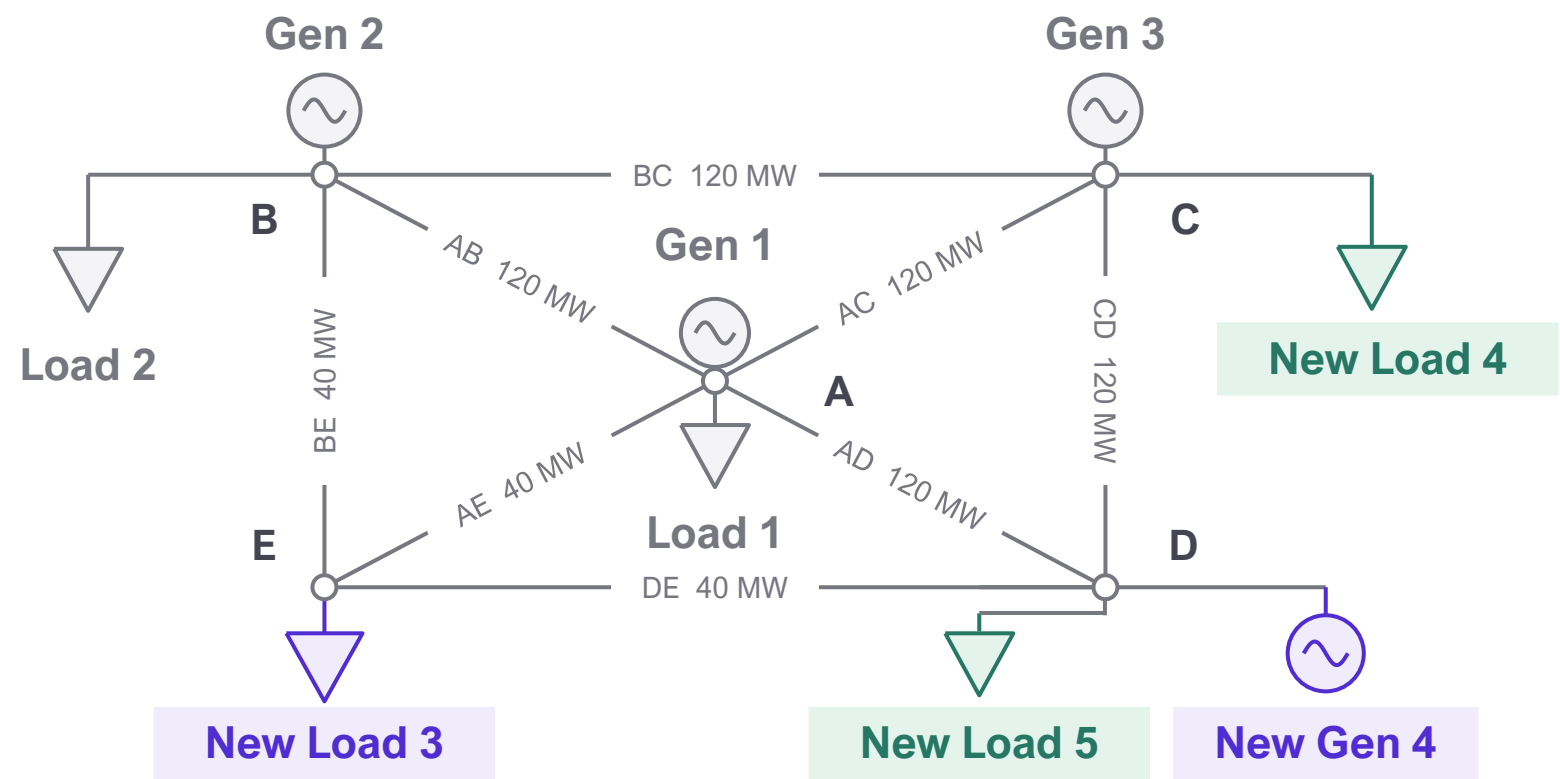


*G-1+N-1 and N-2 are used as a proxy for TPL and ERCOT PG firm planning standard in this deck

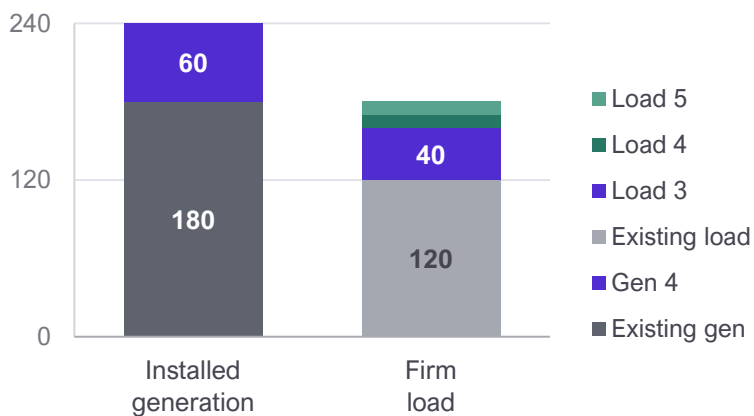
LSG Step 2: allocate residual service to other loads



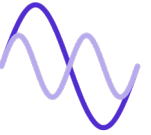
Loads 4 and 5 receive 10 MW each. Sponsor Load 3 retains 40 MW, bringing total firm load to 180 MW.



Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	Total MW
60	60	60	60	240
Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	40	20
New Load 4	0	60	10	50
New Load 5	0	60	10	50
Total load	120	180	60	120

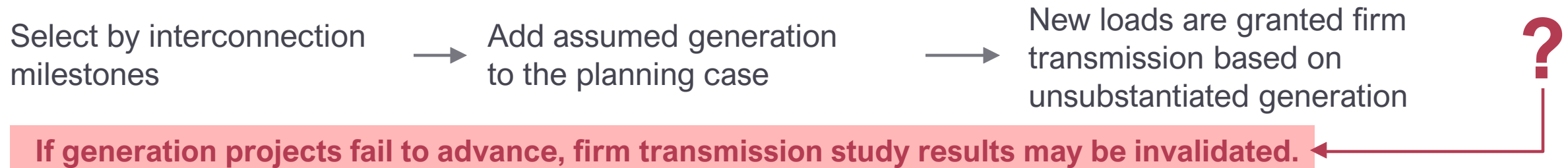


LSG creates more reliable planning assumptions than PGRR127

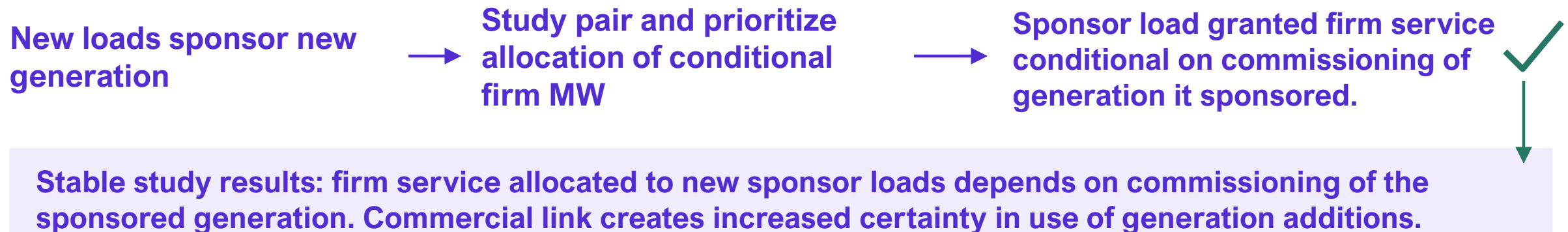


Selecting increasingly early stage and speculative generation in the interconnection queue leads to fragile steady state study solutions which depend on projects reaching operations to remain valid.

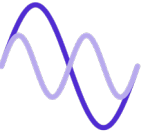
PGRR127: adds supplemental generation based on project queue status



LSG: link sponsored supply assumptions to allocations of conditional load service



LSG creates a multi-step process for incremental service



Load Sponsored Generation (LSG) is a proposed planning construct where loads can commercially sponsor new grid-connected generation and receive a conditional allocation of the incremental firm service that the generation asset enables.

1a Study each sponsor pair individually

Add each sponsor load and its LSG individually to the same base case planning model.

1b Study all sponsor pairs together

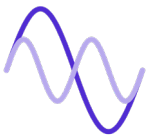
Study all sponsor loads and LSG in aggregate. Allocate each sponsor the lesser of its individual and jointly feasible firm deliverability results.

2 Allocate the remaining deliverability and plan network upgrades

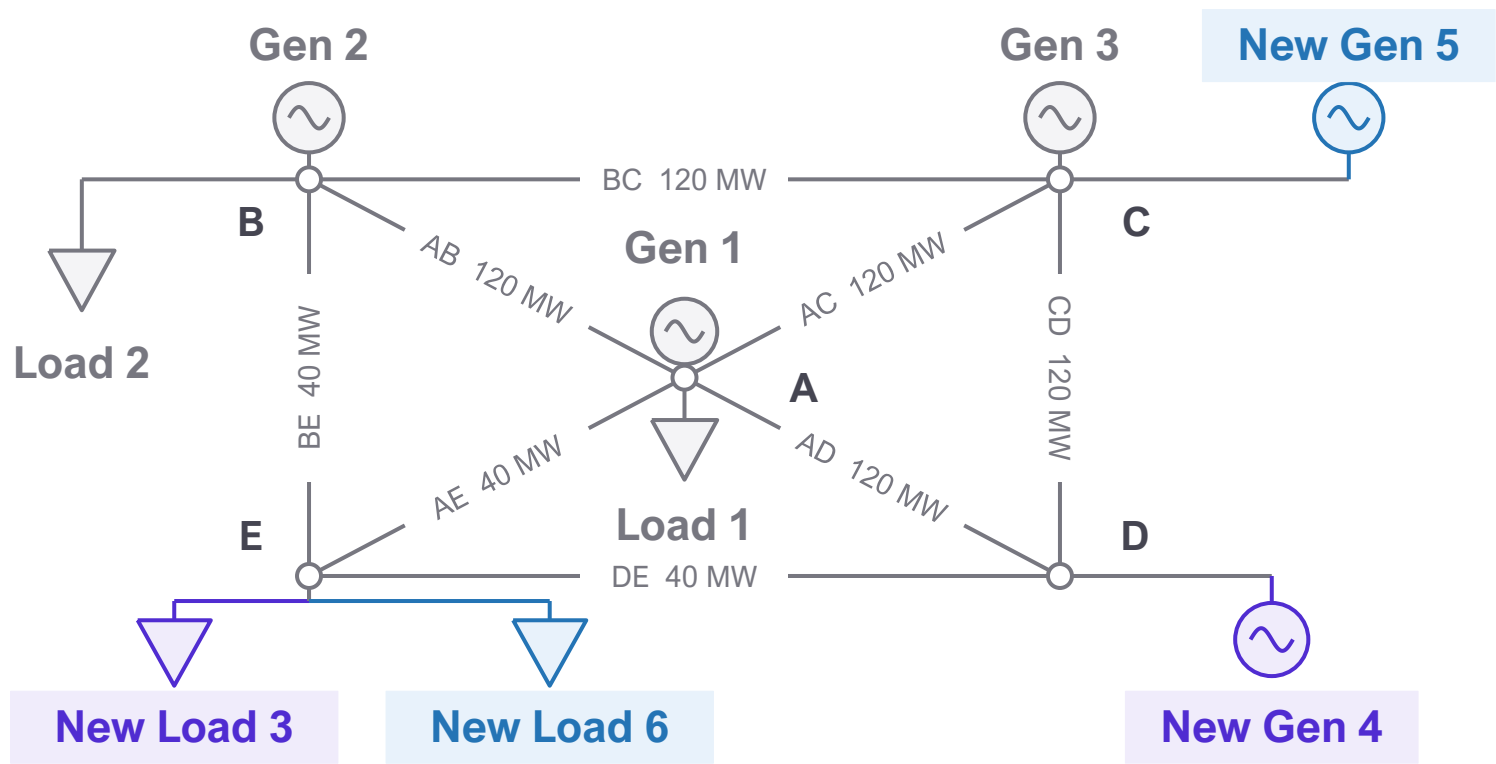
Add all other loads and unsponsored new generation and allocate firm service to all remaining requested load. Confirm the complete portfolio and identify required transmission upgrades.

Firm-service allocations to sponsor load remains conditional on commissioning the sponsored generation

Case 1, Step 1: the combined sponsor study is limiting



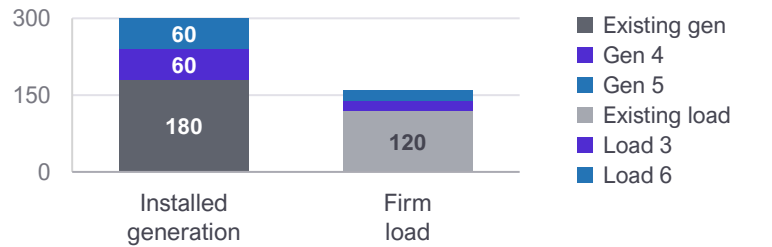
Each pair is studied individually (1a), then all pairs together (1b). Because the combined deliverability case is more binding, sponsors are awarded the allocations from that case.



Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	New Gen 5 MW	Total MW
60	60	60	60	60	300

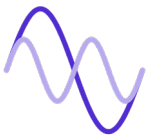
Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	20	40
New Load 6	0	60	20	40
Total load	120	120	40	80

Sponsor / LSG	Alone MW	Joint MW	Award MW
New Load 3 / New Gen 4	40	20	20
New Load 6 / New Gen 5	40	20	20

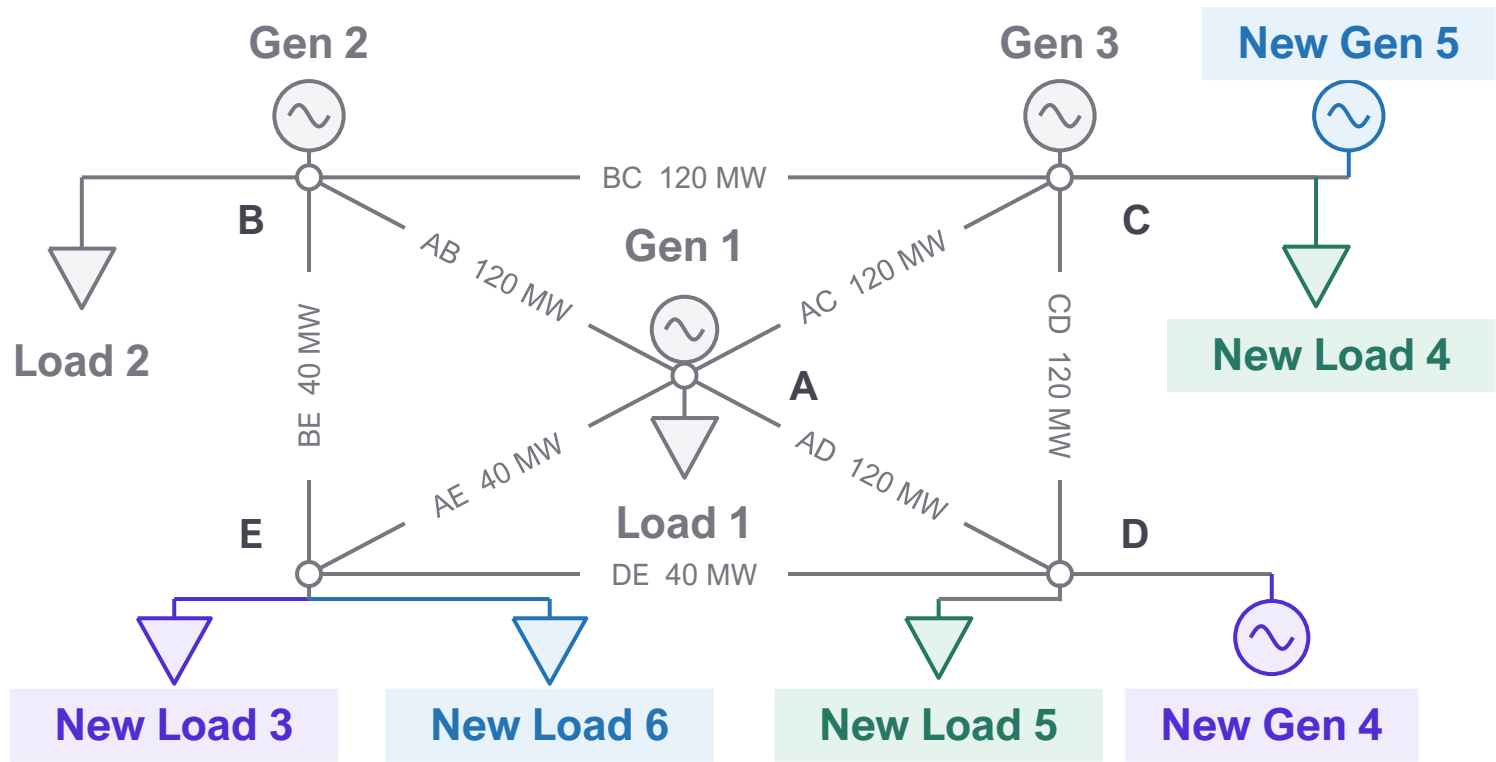


Pairs: Load 3 + Gen 4, Load 6 + Gen 5.
Each award = min(40 MW alone, 20 MW jointly) = 20 MW.

Case 1, Step 2: residual service in the full load study

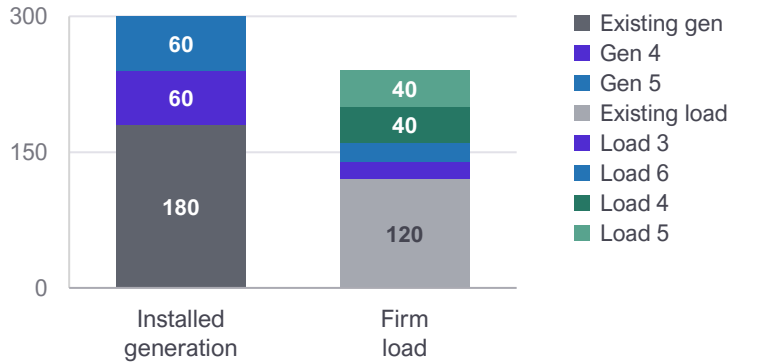


After the 20 MW sponsor awards, add Loads 4 and 5. Each receives 40 MW in the full study, for 240 MW total firm service.

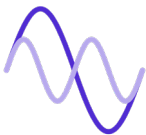


Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	New Gen 5 MW	Total MW
60	60	60	60	60	300

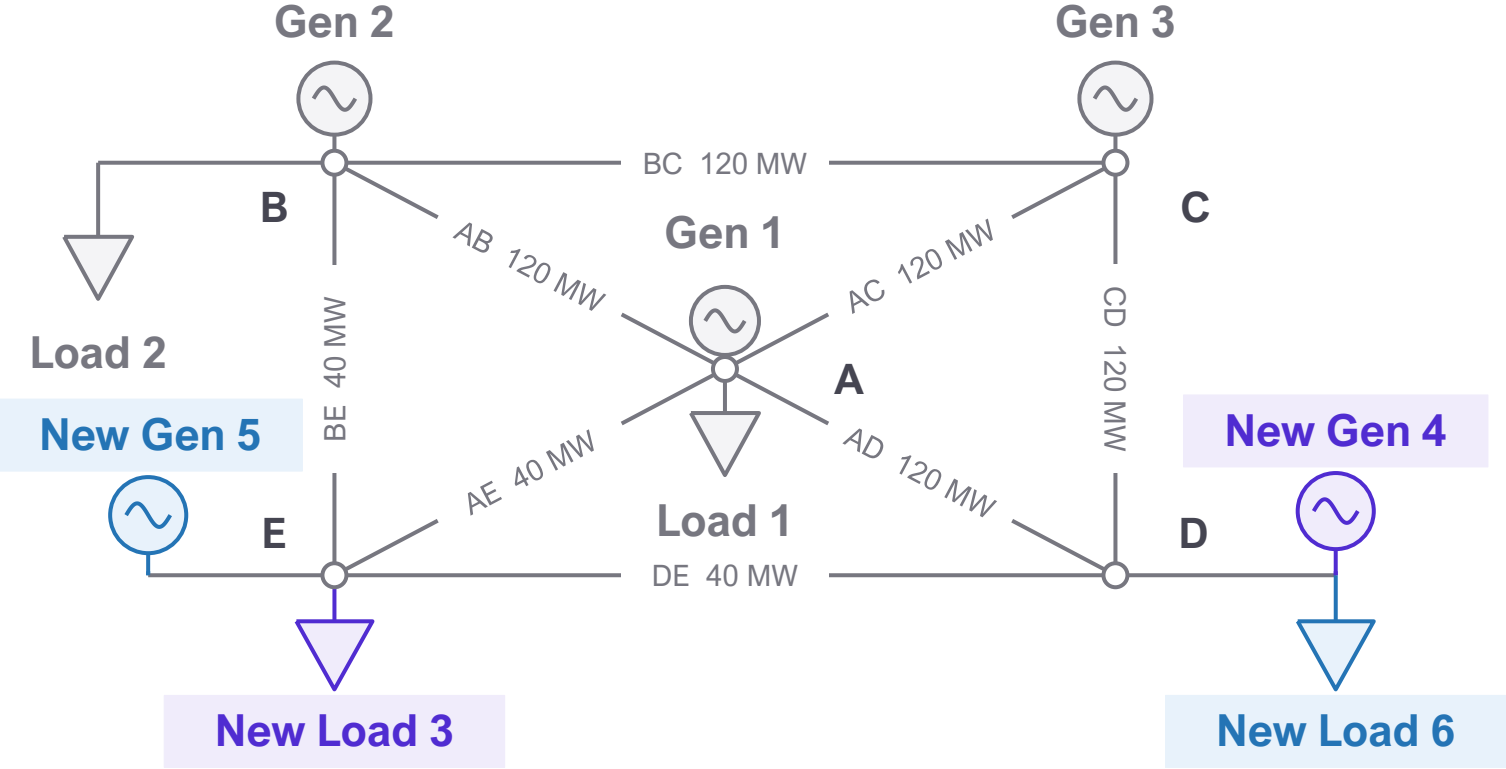
Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	20	40
New Load 4	0	60	40	20
New Load 5	0	60	40	20
New Load 6	0	60	20	40
Total load	120	240	120	120



Case 2, Step 1: the individual sponsor studies are limiting



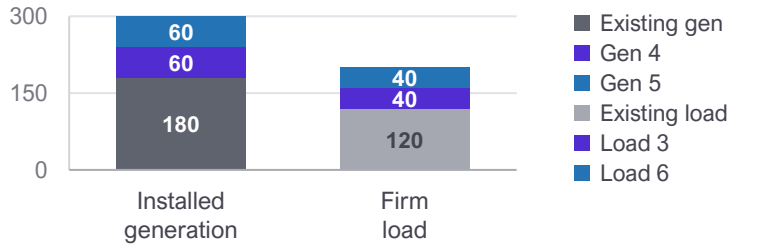
Each pair supports 40 MW alone. Together, the two LSG units support 60 MW for each sponsor’s 60 MW request.



Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	New Gen 5 MW	Total MW
60	60	60	60	60	300

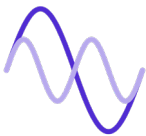
Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	40	20
New Load 6	0	60	40	20
Total load	120	120	80	40

Sponsor / LSG	Alone MW	Joint MW	Award MW
New Load 3 / New Gen 4	40	60	40
New Load 6 / New Gen 5	40	60	40

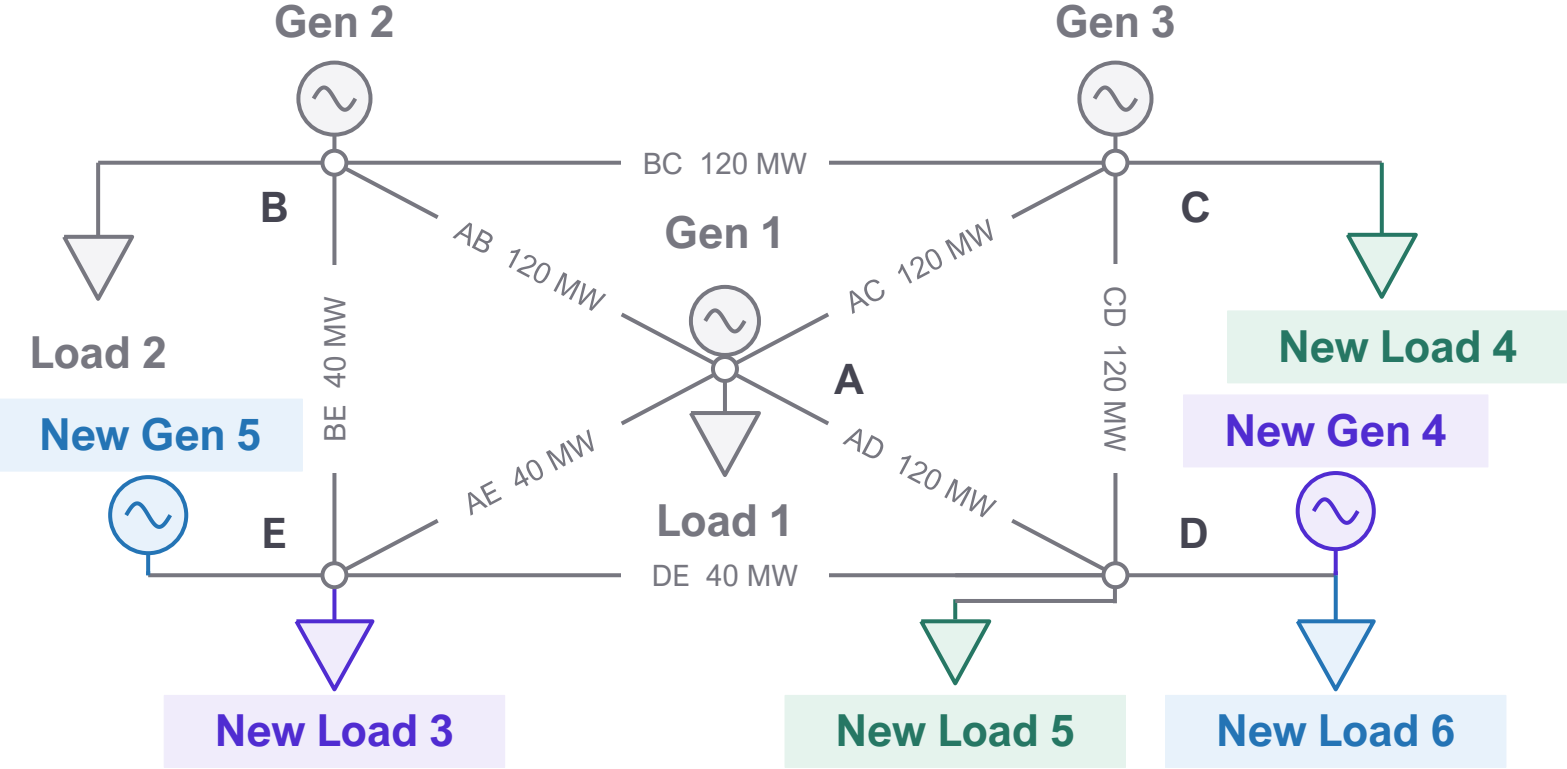


Both sponsors: $\min(40 \text{ MW alone}, 60 \text{ MW jointly}) = 40 \text{ MW}$.
Each load benefits from the other sponsor’s generation.

Case 2, Step 2: residual service in the full load study

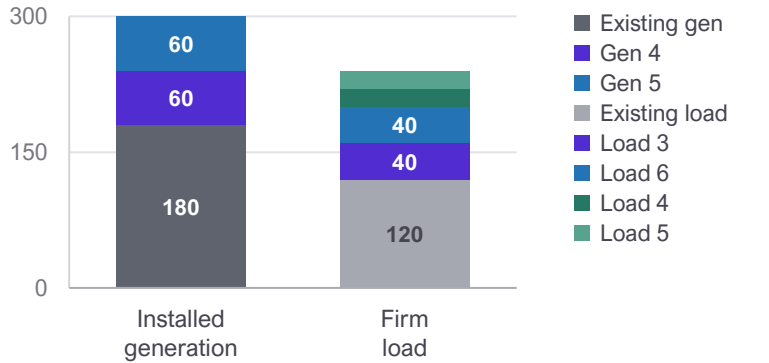


Keep both 40 MW sponsor awards. Loads 4 and 5 receive 20 MW each, for 240 MW total firm service.



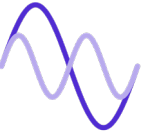
Gen 1 MW	Gen 2 MW	Gen 3 MW	New Gen 4 MW	New Gen 5 MW	Total MW
60	60	60	60	60	300

Load (MW)	Existing firm load	New requested load	New firm load awarded	Delayed or PCLR load
Load 1	60	0	0	0
Load 2	60	0	0	0
New Load 3	0	60	40	20
New Load 4	0	60	20	40
New Load 5	0	60	20	40
New Load 6	0	60	40	20
Total load	120	240	120	120



The additional 40 MW enters the general load study after sponsor attribution.

Summary of the complete proposed study process

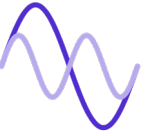


Proposed study sequence for all new loads seeking firm service.



Clarification: Sponsors receive equal treatment in the common study steps. Allocations to sponsor loads under LSG should not disadvantage those samee loads in the common study steps to maximize LG participation

LSG is a Planning Only concept



ERCOT Planning

LSG conditionally allocates firm load service based on the incremental deliverability created by new sponsored generation.

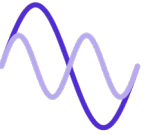
Firm service begins when the associated generation and required facilities are commissioned and approved.

ERCOT Operations

No change to operating practices.

Generation follows SCED and can be committed by ERCOT for reliability under existing procedures.

Positive Sum Benefits



Private Development

Speed to power and optionality

A route to acceleration of firm service through asset sponsorship while retaining flexibility to locate and scale load and generation separately.

Transmission Planning

Stable expansion plans and reliable growth

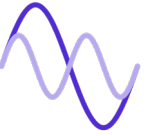
Connecting firm-service allocations for new load to commissioning of sponsored generation produces trustworthy network planning assumptions.

ERCOT System Operations

A more efficient, reliable operating topology

Encourages large scale, efficient, grid connected generation at locations that best serve system level needs and maintain socialized benefits for the public.

Key dates for the next stakeholder discussions



October 15

This presentation

October 20

October 28

Batch 1+ scope

Workshop 3a · 1:00 p.m.
Austin + Webex

CTP planning scope

Workshop 3b · 1:00 p.m.
Taylor TCC2 + Webex

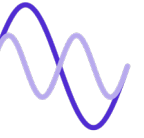
Next TAC meeting

9:30 a.m.
Austin + Webex

All stakeholder feedback welcome

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Open Questions for Critique and Feedback



What qualifies as sponsorship?

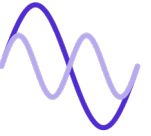
How should sponsors share constrained capacity?

What happens when a project changes?

Does there need to be a cap on LSG allocation of existing transmission transfer capacity?

Can LSG be exchanged between sponsors during a refinement period?

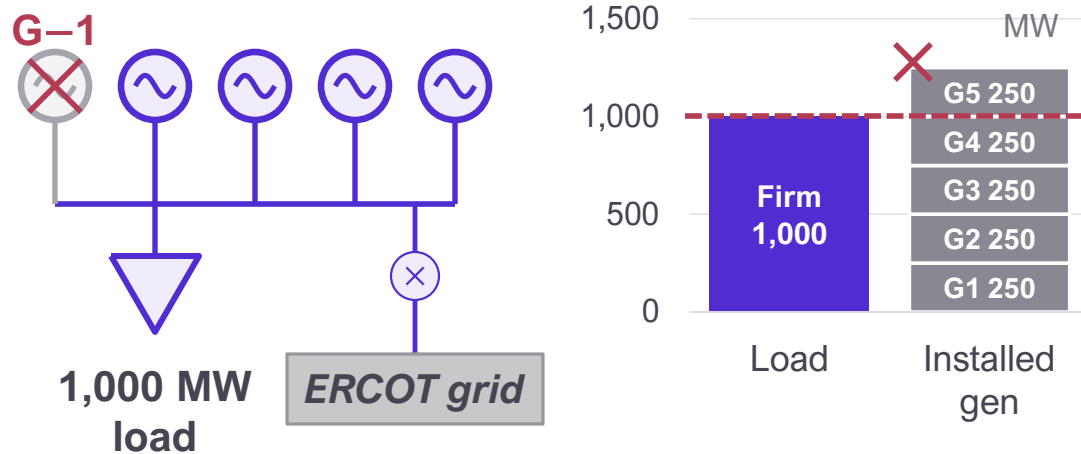
Appendix: Conceptual Steppingstone: Co-location Example



Assuming a G-1 transmission security standard, a load could produce its own firm grid service with a G+1 co-located generation configuration.

Full load can be firm

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

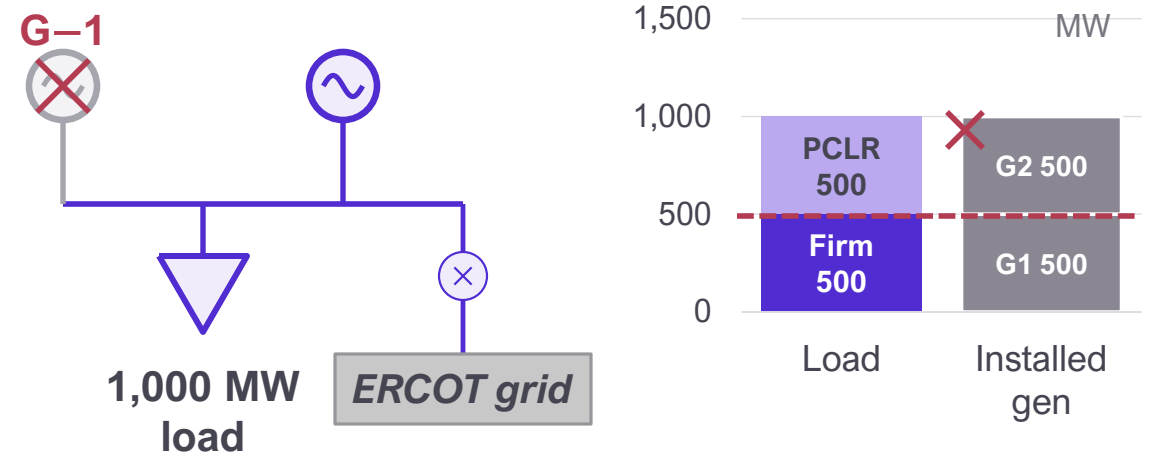


$4 \times 250 \text{ MW} = 1,000 \text{ MW}$

1,000 MW firm through joint commissioning

Firm and PCLR portions

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

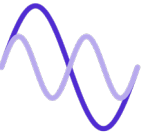


$1 \times 500 \text{ MW} = 500 \text{ MW}$

500 MW firm + 500 MW PCLR or deferred

Firm deliverability from co-located generation should logically be “attributed” to the co-located load rather than “socialized” to all new loads in a study. This concept can also be extended to non-colocated loads.

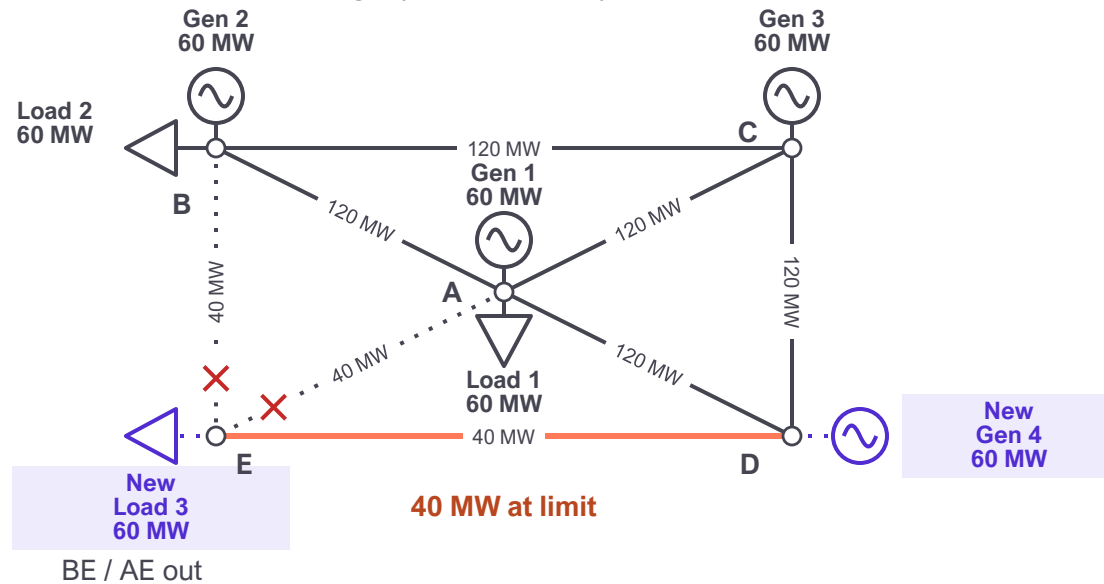
Appendix: 80% LSG study cap



A reasonable agreement could be made that LSG process ought to limit the amount of transmission capacity which can be allocated to LSG sponsors to reserve some system capacity for non-LSG load. This could be facilitated through derating tx capacity in the LSG steps to preserve headroom for the common steps.

100% of normal ratings

Line labels: normal ratings (120 / 40 MW)



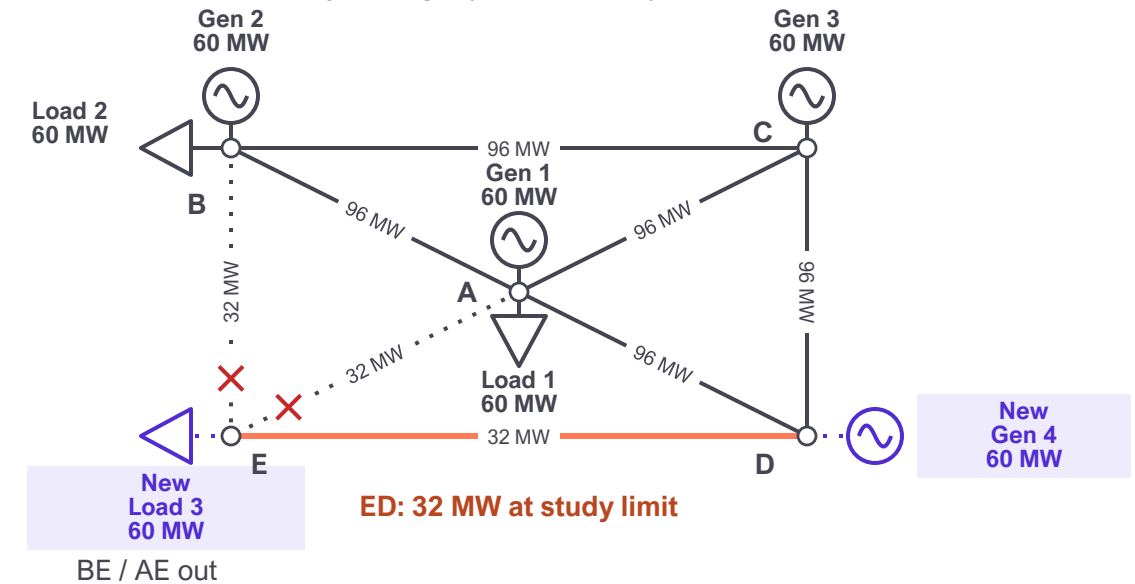
40 MW sponsor firm service

20 MW request enters the common pass

0 MW reserved below the 40 MW normal rating

80% of normal ratings

Line labels: 80% study ratings (96 / 32 MW)



32 MW sponsor firm service

28 MW request enters the common pass

8 MW reserved below the 40 MW normal rating