

Trade Power across the Gulf: Revenue Models for GCC Interconnectors

A commercial framework for regional electricity trading, reserve sharing and network investment

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Abstract

The Gulf Cooperation Council interconnection creates reliability and trading options across six national power systems. Commercial value depends on more than physical capacity. Market participants require defined products, transparent access, secure dispatch, credible price formation, meter-to-cash settlement and a revenue model that funds operation and expansion without suppressing efficient trade.

This paper develops the GCC Interconnector Revenue Framework. It separates emergency support, bilateral energy, spot and day-ahead exchange, installed-capacity sharing, reserves, imbalance, congestion and transmission rights. It then connects those services to wheeling charges, availability payments, capacity auctions, energy charges, congestion rents, member contributions and external-market expansion.

GCCIA states that its market framework supports scheduled energy transfers, installed-capacity resource sharing, operational reserves and settlement of unscheduled exchanges [1]. GCCIA's 2024 annual report recorded a monthly trading peak of 520,800 MWh in August 2024 and reported full use of interconnected-line capacity during that month [2]. IRENA describes the existing network and identifies commercial-market, legal, tariff and national-reform requirements for deeper trade [3]. These observations establish market development and physical use; they do not prove a particular future revenue forecast.

The central conclusion is that GCC interconnector economics should combine a stable network-recovery layer with transparent, product-specific market revenue. Four tables and three figures translate the framework into a decision method. Numerical examples are hypothetical management assumptions used solely to demonstrate the method; they are not observations, forecasts, valuation conclusions or investment recommendations.

JEL Classification: F15, G31, H54, L51, L94, Q40, Q48

Keywords: GCC electricity trade, interconnector revenue, power market, reserve sharing, transmission pricing, congestion, regional integration, infrastructure finance

This paper is an educational and structural analysis prepared for research purposes. It is not investment advice, an offer, or a solicitation. It contains no client information.

1. DEFINE THE COMMERCIAL DECISION

GCC utilities and the interconnector operator must decide which services to trade, how to allocate scarce transfer capacity and how infrastructure costs will be recovered. The design

should strengthen reliability, produce transparent settlement and support investment without forcing unlike services into one price.

The evidence file should reconcile secure transfer capability, market rule, participant obligation, meter source, settlement formula and accountable authority. Assumptions about trade volume, price and utilisation should remain explicit and should be updated from observed transactions.

A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

2. STATE THE MARKET OBJECTIVES

Objectives may include emergency support, reserve sharing, economic energy exchange, renewable integration, capacity adequacy, fuel savings and export development. Each objective requires a distinct product, performance standard and benefit measure.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

3. MAP PHYSICAL TRANSFER CAPABILITY

Commercial rights must reflect secure transfer capability after contingencies, maintenance, losses, stability and national-grid constraints. Nameplate line capacity does not equal simultaneously saleable capacity at every border.

The commercial model should show who pays, what service is delivered, when cash is settled and which party bears curtailment, credit, currency and regulatory risk. Approval should depend on enforceable arrangements and operational feasibility.

Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

4. SEPARATE FIRM AND NON-FIRM SERVICE

Firm service carries defined availability and curtailment obligations, while non-firm trade yields to reliability needs. Pricing, compensation, collateral and investment value should reflect the difference.

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5. VALUE EMERGENCY SUPPORT

Emergency transfers can avoid outages and reserve activation. The framework should define triggers, priority, energy price, availability payment, restoration obligations and settlement after the event.

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Table 1. GCC interconnector product and revenue map

Product	Buyer need	Operator obligation	Primary revenue	Principal risk
Emergency support	Avoid outage and accelerate restoration	Secure transfer when triggered	Availability plus event energy	Coincident regional stress
Bilateral energy	Seasonal or hourly economic exchange	Capacity allocation and schedule	Wheeling and transaction charge	Counterparty and curtailment
Installed-capacity sharing	Reduce duplicated adequacy investment	Deliverability and testing	Capacity reservation payment	Availability and policy change
Operating reserves	Regional balancing and contingency response	Telemetry, activation and settlement	Reserve availability and activation	Response failure
Short-term market	Transparent optimisation of surplus and deficit	Auction, dispatch interface and settlement	Market fee and congestion revenue	Low liquidity and market power

Product design remains subject to system studies, governing agreements and national law.

6. DESIGN SCHEDULED BILATERAL TRADE

Bilateral contracts can match buyers and sellers across seasons and hours. Standard nomination, capacity reservation, imbalance and credit rules reduce negotiation cost while preserving commercial choice.

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7. DESIGN A SPOT MARKET

A central platform can match short-term supply and demand where bids, offers, network availability and settlement are transparent. Liquidity should be assessed before assuming a single market price is robust.

The evidence file should reconcile secure transfer capability, market rule, participant obligation, meter source, settlement formula and accountable authority. Assumptions about trade volume, price and utilisation should remain explicit and should be updated from observed transactions.

A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

8. INTRODUCE DAY-AHEAD TRADING

Day-ahead auctions can coordinate generation schedules and cross-border capacity before real time. Gate closure, forecast quality and national dispatch interfaces determine operational value.

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9. INTRODUCE INTRADAY ADJUSTMENT

Intraday trading can manage renewable and load forecast changes closer to delivery. The product requires timely metering, dispatch communication, credit checks and reliable capacity recalculation.

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10. CREATE CAPACITY PRODUCTS

Installed-capacity sharing or reliability options can reduce duplicated reserve investment. The contract should define qualification, availability, deliverability, testing, penalties and treatment during regional stress.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

11. CREATE RESERVE PRODUCTS

Spinning, non-spinning and replacement reserves can be procured regionally where response can cross the network securely. Activation, telemetry, response time and opportunity cost require common definitions.

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12. SET IMBALANCE PRICING

Unscheduled deviations should face a price that encourages accurate nomination and funds balancing actions. The method should distinguish system-caused events, participant deviations and emergency support.

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Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

13. ALLOCATE CONGESTION

When requested transfers exceed secure capacity, allocation can use pro rata rules, explicit auctions, implicit market coupling or priority rights. The method affects efficiency, bankability and participant incentives.

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14. PRICE TRANSMISSION LOSSES

Loss factors should reflect the incremental energy required by cross-border flows without creating arbitrary barriers. Publication and periodic calibration improve confidence in settlement.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

15. SET THE WHEELING CHARGE

A wheeling charge can recover interconnector and national-network costs. The base may be capacity, energy, distance, zone or a hybrid, with safeguards against double recovery.

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16. DEFINE TRANSMISSION RIGHTS

Physical or financial transmission rights can hedge congestion and support longer-term trade. Rights must remain compatible with reliability curtailment and should not exceed dependable transfer capability.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

17. USE COUNTERFLOW VALUE

Opposite-direction transactions can relieve a binding flow and create additional commercial capacity. Settlement should reward the physical benefit without treating counterflow as firm capacity in every condition.

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18. INTEGRATE RENEWABLE ENERGY

Solar and wind diversity across geography and time can create trade value. Renewable attributes, forecast error, curtailment priority and balancing responsibility should be specified separately from energy.

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19. INTEGRATE STORAGE AND FLEXIBILITY

Storage, flexible demand and desalination loads can shape imports and exports. Market rules should permit participation while preventing double counting of capacity, reserve and energy services.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

20. PROTECT RELIABILITY PRIORITY

System security should remain the operating constraint for every commercial arrangement. Curtailment order, emergency override, restoration and compensation should be predetermined.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

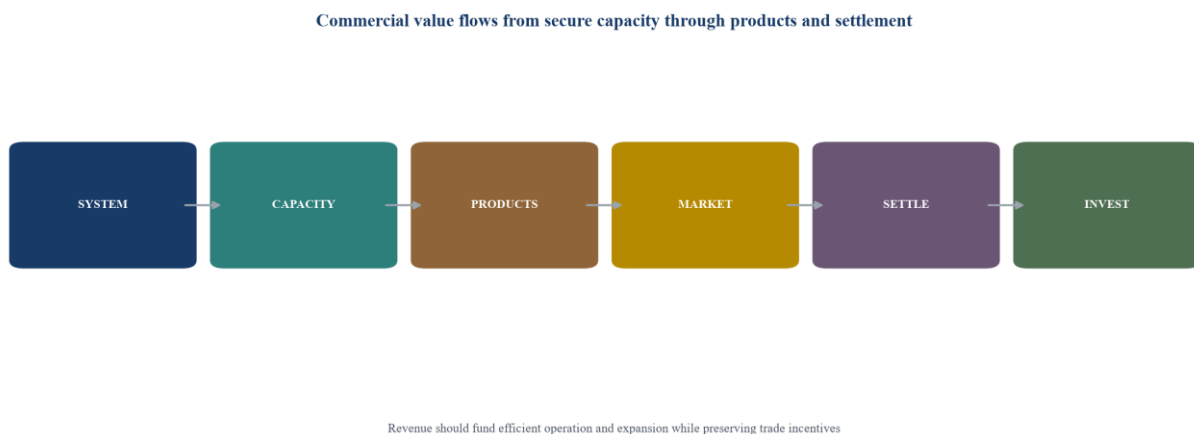


Figure 1. GCC interconnector commercial architecture
Physical security constrains every commercial product and settlement layer.

21. CHOOSE THE PRICE-FORMATION MODEL

The market can use administratively agreed prices, avoided-cost sharing, bilateral negotiation, auctions or nodal and zonal prices. The method should match liquidity, governance and data maturity.

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Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

22. USE COST-BASED EXCHANGE CAREFULLY

Cost-based trade can create early transactions where competition is limited. Auditable variable cost, start cost, fuel treatment and allocation of fixed cost are necessary to avoid dispute.

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23. USE BID-BASED TRADING

Bid-based markets reveal willingness to buy and sell but require participation, monitoring and transparent clearing. Caps, floors and mitigation rules should reflect scarcity and market concentration.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

24. DESIGN SCARCITY PRICING

Scarcity prices can signal the value of reserves and capacity during tight hours. Caps, emergency actions and consumer protection should preserve operational incentives without uncontrolled exposure.

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Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

25. CONTROL MARKET POWER

Concentrated generation, limited interconnector capacity and national policy can create pivotal suppliers. Monitoring should cover bidding, withholding, affiliate transactions and physical availability.

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26. RECOGNISE SUBSIDY AND FUEL-PRICE DIFFERENCES

Domestic fuel pricing, subsidies and tariff structures can distort cross-border offers. The settlement framework should disclose relevant adjustments and avoid embedding opaque transfers.

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27. BUILD THE SETTLEMENT ARCHITECTURE

Settlement should reconcile schedules, meters, losses, congestion, reserves, imbalances, taxes and currency. Timelines, corrections, disputes and finality should be common across participants.

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28. CREATE THE CREDIT FRAMEWORK

Utilities and traders present different sovereign, corporate and liquidity risks. Limits, collateral, guarantees, netting and suspension rights should follow enforceable exposure calculations.

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29. DESIGN COLLATERAL EFFICIENCY

Cash, letters of credit, sovereign support and parent guarantees have different liquidity and legal value. Portfolio netting and variation margin can reduce exposure while preserving market access.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

30. MANAGE PARTICIPANT DEFAULT

Default procedures should protect operations and prevent socialisation of uncontrolled losses. The waterfall should define collateral use, close-out, mutualised funds and recovery from the defaulter.

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Table 2. Revenue-model comparison

Revenue element	Stability	Cost signal	Market effect	Core control
Member contribution	High	Broad regional-benefit allocation	Supports readiness and public-good functions	Agreed allocation and review
Availability tariff	High to medium	Pays for dependable access	Supports financeable capacity	Performance deductions
Capacity auction	Medium	Reveals scarcity by period and direction	Allocates rights competitively	Market-power and credit rules
Energy charge	Volume dependent	Charges actual throughput	Can discourage low-margin trade	Efficient rate and loss treatment
Congestion revenue	Volatile	Reveals network scarcity	Supports hedging or expansion	Transparent permitted use
Transaction fee	Volume dependent	Recovers platform and settlement	Scales with participation	Published tariff and cap

The preferred mix should reflect cost causation, market maturity, revenue stability and participant incentives.

31. MANAGE CURRENCY RISK

Energy, capacity and transmission charges may be invoiced in different currencies. The framework should specify settlement currency, conversion source, timing, hedging responsibility and payment disruption.

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32. ADDRESS TAX AND CUSTOMS TREATMENT

Cross-border energy and services may have VAT, withholding, customs or permanent-establishment implications. Tax treatment should be confirmed by jurisdiction before pricing is finalised.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

33. DEFINE MARKET GOVERNANCE

Member states, national utilities, system operators, regulators and GCCIA need explicit decision rights. Governance should separate rulemaking, operation, monitoring, settlement and dispute resolution.

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Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

34. SET TRANSPARENT ACCESS RULES

Eligibility, licensing, connection, credit and technical requirements should be published. Comparable participants should receive comparable access subject to system security and national law.

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35. ALLOCATE SCARCE CAPACITY

Long-term rights, annual auctions, monthly products and short-term allocation compete for the same network. A reserve for reliability and short-term liquidity can coexist with bankable long-term access.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

36. DEFINE CURTAILMENT AND COMPENSATION

Curtailement priority should distinguish emergency, maintenance, congestion and participant default. Compensation should reflect firmness and avoid rewarding service that was never guaranteed.

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37. BUILD COMMON METERING STANDARDS

Revenue-grade metering, time synchronisation, validation and substitution rules are essential for cross-border settlement. Responsibilities should extend from border meters into national systems where needed.

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38. CREATE THE DATA ARCHITECTURE

Participants require network availability, prices, awards, schedules, meter data and settlement statements. Access control, audit trails, retention and data ownership should support oversight and dispute resolution.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

39. PROTECT CYBERSECURITY

Market and operational platforms are critical infrastructure. Security design should include segmentation, identity, logging, incident response, vendor access, recovery and coordinated cross-border exercises.

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40. COORDINATE DISPATCH

Commercial schedules must be translated into feasible national dispatch and interconnector flows. Common procedures should cover gate closure, redispatch, outages, reserves and emergency instructions.

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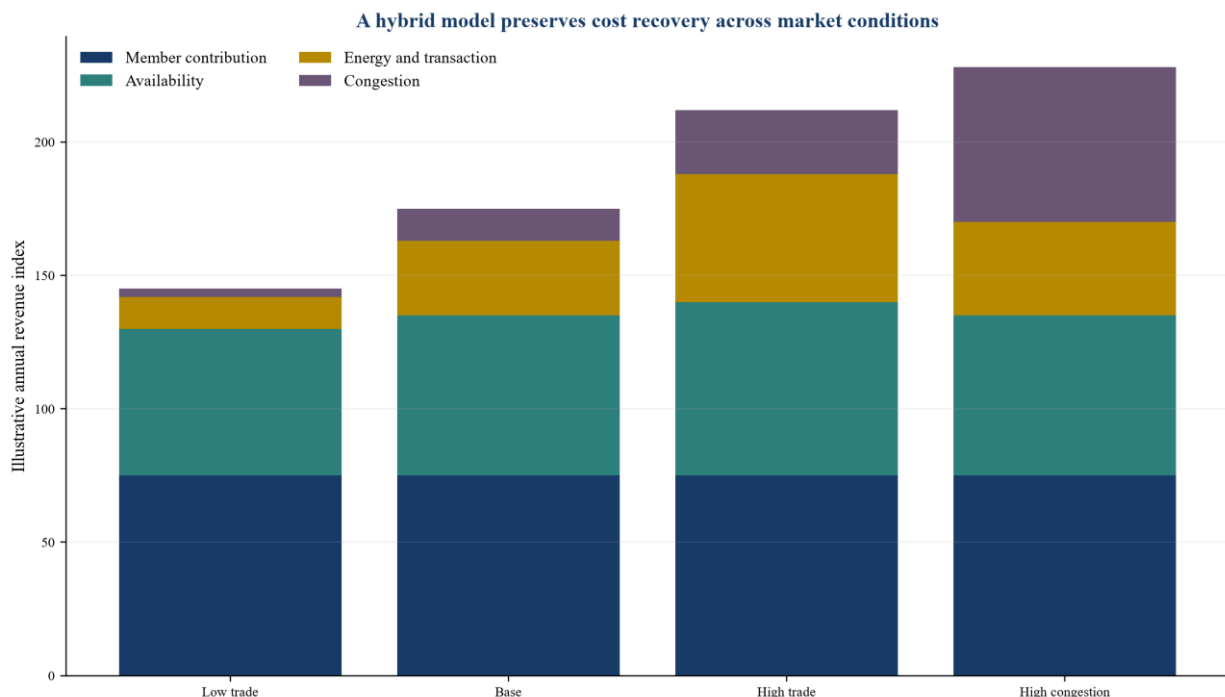


Figure 2. Hypothetical hybrid revenue sensitivity

Values are hypothetical management assumptions used solely to demonstrate revenue resilience.

41. BUILD THE INTERCONNECTOR COST MODEL

The cost base should distinguish existing assets, expansions, national reinforcements, control systems, operations, losses and financing. Shared assets and country-specific works should remain transparent.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

42. USE A REGULATED NETWORK TARIFF

A regulated charge can provide stable recovery where access and prudence are supervised. Incentives should reward availability, efficiency and timely expansion while protecting users from avoidable cost.

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Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

43. USE AVAILABILITY REVENUE

Capacity users or member states can pay for dependable interconnector availability. Performance deductions should reflect outages, constraints and service firmness within operator control.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

44. USE VOLUME REVENUE CAUTIOUSLY

Energy-based charges rise with trade and align payment with use. They can create revenue volatility and discourage efficient transactions if charges exceed marginal network cost.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

45. USE CONGESTION REVENUE

Auction or market-coupling congestion rents can signal scarcity and fund rights or network investment. Governance should define permitted use and prevent reliance on deliberately persistent congestion.

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Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

46. CREATE A HYBRID REVENUE MODEL

A hybrid can combine fixed member contributions, regulated availability, capacity auctions, energy charges and congestion revenue. The mix should cover efficient cost and preserve trading incentives.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

47. FINANCE NETWORK EXPANSION

Expansion finance should connect incremental capability to contracted access, regulated recovery or member support. Construction, interface, delay and utilisation risk should be allocated before debt is raised.

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The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

48. CONSIDER AN SPV

A project SPV can ring-fence a new link or reinforcement when assets, contracts and cash flows are separable. National-grid interfaces, sovereign obligations and operating control remain critical.

The commercial model should show who pays, what service is delivered, when cash is settled and which party bears curtailment, credit, currency and regulatory risk. Approval should depend on enforceable arrangements and operational feasibility.

Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

49. STRUCTURE GOVERNMENT AND UTILITY SUPPORT

Guarantees, take-or-pay capacity payments, liquidity facilities and termination compensation can support debt. Their legal authority, budget treatment and enforceability require independent review.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

50. SIZE DEBT AGAINST DOWNSIDE CASH FLOW

Debt service should rely on contracted or regulated revenue with tested availability, volume and payment downside. Congestion rent and optional trade should receive conservative credit.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

Table 3. Hypothetical expansion financing sensitivity

Case	Expansion capex index	Contracted revenue share	Utilisation	Minimum debt-service coverage	Decision implication
Regulated availability	100	85%	45%	1.65x	Strong recovery with performance discipline
Volume-led tariff	100	25%	60%	1.12x	Trade growth exposure constrains leverage
Capacity-auction model	100	60%	55%	1.42x	Requires credible auction liquidity
Hybrid model	100	72%	55%	1.58x	Balances recovery and trading incentives
Expansion delay	112	72%	45%	1.23x	Needs contingency and completion support

All values are hypothetical management assumptions and do not represent GCCIA, a member state or an actual project.

51. PHASE MARKET DEVELOPMENT

A staged route can move from emergency exchange and bilateral contracts to capacity auctions, day-ahead trading and deeper market coupling. Each phase should have objective readiness gates.

The commercial model should show who pays, what service is delivered, when cash is settled and which party bears curtailment, credit, currency and regulatory risk. Approval should depend on enforceable arrangements and operational feasibility.

Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

52. CREATE THE LEGAL FRAMEWORK

Treaties, national laws, market rules, operating agreements and participant contracts should align. Legal review should address jurisdiction, sovereign immunity, enforcement and change in law.

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A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

53. ALIGN NATIONAL REGULATION

National tariff, dispatch, subsidy and procurement rules can undermine regional trade. A coordination mechanism should identify conflicts and approve time-bound transition arrangements.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

54. DESIGN DISPUTE RESOLUTION

Technical, settlement, contractual and sovereign disputes may require different forums. Escalation, expert determination, arbitration, interim performance and payment security should be agreed.

The commercial model should show who pays, what service is delivered, when cash is settled and which party bears curtailment, credit, currency and regulatory risk. Approval should depend on enforceable arrangements and operational feasibility.

Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

55. ADDRESS GCC SYSTEM DIVERSITY

Member systems differ in size, generation mix, fuel economics, peak timing and regulatory structure. Product design should capture complementarities without assuming complete market harmonisation.

The evidence file should reconcile secure transfer capability, market rule, participant obligation, meter source, settlement formula and accountable authority. Assumptions about trade volume, price and utilisation should remain explicit and should be updated from observed transactions.

A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

56. CONNECT EXTERNAL MARKETS

Links to Iraq, Egypt, Oman reinforcements and other regions can broaden trade and diversify resources. External access requires compatible technical, commercial, credit and geopolitical frameworks.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

57. ALLOCATE BENEFITS BETWEEN COUNTRIES

Benefits include avoided capacity, fuel savings, reliability, renewable integration and option value. Allocation should distinguish system benefit from cash transfer and support durable political agreement.

The commercial model should show who pays, what service is delivered, when cash is settled and which party bears curtailment, credit, currency and regulatory risk. Approval should depend on enforceable arrangements and operational feasibility.

Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

58. RUN COMMERCIAL AND FINANCIAL DILIGENCE

Diligence should validate demand, offers, rules, utilisation, price formation, credit, costs and revenue. Historical emergency support should not be treated automatically as future commercial volume.

The evidence file should reconcile secure transfer capability, market rule, participant obligation, meter source, settlement formula and accountable authority. Assumptions about trade volume, price and utilisation should remain explicit and should be updated from observed transactions.

A durable regional market needs transparent rules, common data and predictable settlement. The preferred design should increase useful trade while preserving national security obligations and fair cost recovery.

59. CREATE THE MARKET SCORECARD

The scorecard should report reliable capacity, traded energy, liquidity, price convergence, reserve sharing, availability, curtailment, payment performance and consumer benefit.

The analysis should distinguish reliability service, commercial energy, capacity, reserves and financial rights. Benefits should be measured against a credible counterfactual and separated from transfers between countries, utilities and customers.

The decision body should see base, low-liquidity, congestion, payment-default and expansion-delay cases. The model should remain financially sustainable without assuming continuous scarcity or unrestricted cross-border access.

60. ADOPT THE DECISION RECORD AND 90-DAY PLAN

The final record should state products, access, pricing, revenue, governance, risk, financing and implementation gates. The first 90 days should close evidence gaps that could change the preferred model.

The commercial model should show who pays, what service is delivered, when cash is settled and which party bears curtailment, credit, currency and regulatory risk. Approval should depend on enforceable arrangements and operational feasibility.

Implementation should translate the design into legal, regulatory, market, system, settlement and financing workstreams. Readiness gates should control progression from bilateral trade to more integrated products.

Table 4. Illustrative 90-day GCC market-design programme

Period	Workstream	Core actions	Decision output	Accountable body
Days 1-15	System and products	Confirm capacity, reliability priority and product definitions	Approved service catalogue	System operators and GCCIA
Days 16-30	Access and pricing	Define allocation, firmness, wheeling, losses and congestion	Draft commercial rules	Market-design committee
Days 31-45	Settlement and credit	Specify metering, invoices, collateral, default and currency	Settlement rulebook	GCCIA and utilities
Days 46-60	Revenue and finance	Model costs, tariffs, utilisation, expansion and downside	Risk-adjusted revenue model	Finance working group
Days 61-75	Legal and regulatory	Align agreements, national rules, tax and dispute routes	Implementable legal map	Member states and regulators
Days 76-90	Pilot and governance	Select products, participants, controls, KPIs and readiness gates	Authorised pilot plan	GCCIA board and members

Timing is indicative and should be adapted to GCCIA and member-state governance.

Regional electricity trade scales through controlled commercial readiness



Reliable operations, transparent settlement and financeable revenue advance together

Figure 3. Five gates for GCC interconnector commercial development
Each gate requires documented evidence before market scope and capital commitment expand.

The framework converts physical interconnection into a governed portfolio of reliability, capacity and energy services. It aligns access, pricing, settlement and investment with the secure capability of the regional network.

Commercial depth should expand through measurable readiness. Product performance, payment discipline, market liquidity and consumer benefit should determine progression toward more integrated trading.

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