SPHEREX INSIGHTS

# Guyana's Planning Architecture Must Catch Up with the Economy

## The electricity, foreign-exchange and procurement evidence points to the same institutional problem: policies are still too often planned in separate analytical compartments.

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**CENTRAL THESIS: Guyana's binding constraint is no longer simply capital mobilization or financing. It is the widening gap between the complexity of the economy and the analytical and execution capacity of the institutions responsible for managing it. Closing that gap requires institutional intelligence: the capacity to anticipate how electricity demand, fiscal expansion, imports, liquidity, foreign-exchange availability, procurement outcomes and domestic productive capacity interact before stress appears as blackouts, market shortages, cost escalation or weak development conversion.**

| 242.6 MW | 266 MW | 68.9% | USD 78.9mn |
|---|---|---|---|
| DBIS PEAK \| AUG. 2026 | PROJECTED OCT. PEAK | PROCUREMENT VALUE \| TOP DECILE | 2025 FX LIQUIDITY-GAP SIGNAL |

Guyana is attempting to manage a scale and speed of economic transformation for which its inherited planning systems were not originally designed. Oil revenues, public investment, housing expansion, commercial activity, industrial projects, imports, electricity demand, banking liquidity and foreign-exchange settlement are now moving together. The central weakness is not that institutions lack sector plans; it is that the economy's pressures are increasingly cross-sectoral while planning, data and execution systems still tend to operate in separate compartments.

The consequence is not necessarily an absence of plans. In several areas, detailed plans exist. The more difficult problem is that planning remains fragmented: demand may be forecast without sufficient connection to the location and timing of infrastructure; public expenditure may be measured without fully tracing domestic retention; and headline foreign-exchange inflows may be cited without modelling the liquidity that actually reaches the market.

Three recent areas of SphereX research—electricity demand, foreign-exchange liquidity and public procurement—therefore point to the same institutional conclusion. Guyana is not merely facing separate pressures in power supply, financial markets and public spending. It is facing an integrated planning problem in which one policy decision can move through demand, imports, liquidity, FX settlement, infrastructure capacity and development outcomes at the same time.

## The current electricity pressure is a planning signal

On 14 August 2026, **GPL reported** that peak demand on the Demerara-Berbice Interconnected System had reached 242.6 MW, up from 221 MW in 2025. GPL expects peak demand to reach 266 MW by the end of October. Its customer base increased from approximately 204,000 in 2020 to 250,000, with 5,000 new customers added during the first seven months of 2026.

The pressure is not uniform. Region Three demand reportedly moved from 26 MW to 41 MW against 26.1 MW of installed capacity at Vreed-en-Hoop.

On parts of the East Coast and East Bank, feeders designed to carry approximately 8–9 MW have reached their thermal limits. GPL has 256 MW of reliable generation capacity and has asked consumers, government agencies and large customers to conserve electricity between 19:00 and 21:00 hours.

These facts matter because they show that the difficulty cannot be reduced to the national total of installed generation. The system must have dependable capacity, adequate reserve, working transmission, sufficient feeder capacity and the ability to deliver electricity where and when peak demand occurs. A megawatt available in the wrong location—or technically installed but unavailable through maintenance, network constraints or delayed interconnection—is not equivalent to a dependable megawatt at the point of demand.

The same issue arises in the debate over the Gas-to-Energy project at Wales. According to **Kaieteur News**, government officials have indicated that the project may begin limited start-up by year-end, but that the promised 50% reduction in electricity bills would not apply until the plant reaches full capacity. That formulation requires clearer analytical treatment. If current demand is already around 250 MW and the Wales facility is designed for 300 MW, then “full capacity” cannot be discussed as an abstract commissioning milestone. If the plant replaces existing HFO generation, current demand would absorb most of the 300 MW almost immediately, leaving a narrow reserve margin before accounting for new industrial loads, data-center demand or regional demand growth.

This is precisely why energy planning cannot rely only on installed-capacity announcements. If a proposed data center at Wales requires roughly 100 MW, the planning question becomes unavoidable: is the 300 MW plant intended to cover existing national demand, provide reserve margin, displace costly fuel generation, support new industrial load, or some combination of all four? Without a transparent allocation and load-path model, “full capacity” becomes a political phrase rather than an operational concept. A bottom-up system-readiness model would force the issue into explicit assumptions: existing demand served, generation displaced, reserve requirement, committed industrial load, data-center allocation, transmission readiness, ramp-up timing and customer-tariff implications.

## GPL’s forecast was scientific—but not sufficient by itself

GPL’s **Development and Expansion Programme 2023–2027** did not rely on a crude straight-line projection. It used an ARIMAX model—a conventional and mathematically legitimate time-series method incorporating explanatory variables, autoregressive terms and moving averages. The plan projected all-GPL peak demand of 346.5 MW in 2026 and 392.8 MW in 2027.

It would therefore be inaccurate to argue, based solely on the present 242.6 MW DBIS peak, that GPL’s aggregate forecast simply underestimated national demand. The more defensible conclusion is different: an aggregate econometric forecast does not, by itself, provide the operating detail required to anticipate the geography, hour, customer class and physical network through which demand will materialise.

GPL’s own plan acknowledged limitations. It referred to contradictory elements in the selected model, the use of interpolated data because sufficiently lengthy quarterly actuals were unavailable, and the need to explore alternative techniques and more responsive forecasting systems. That acknowledgement was technically responsible. The problem is that these limitations become operationally consequential in an economy experiencing structural breaks.

Historical relationships between GDP and electricity consumption can become unstable when thousands of new homes are connected, air-conditioning intensity increases during hotter conditions, new factories and commercial facilities are commissioned, self-generators migrate to the grid, and demand concentrates in corridors where feeder and substation capacity is already constrained.

**THE PRACTICAL LIMITATION** **A top-down forecast may estimate the direction and scale of aggregate demand reasonably well while still failing to show which households, businesses, industries, regions and hours will create the critical system peak—or whether the implementation pipeline will deliver dependable capacity in time.**

This is why SphereX proposes to complement, not discard, traditional econometric forecasting with a bottom-up dynamic energy-demand model. Residential demand would be built from households, new connections, appliance penetration, average consumption and weather sensitivity. Commercial demand would reflect business formation, floor space, operating hours and cooling intensity. Industrial demand would incorporate named projects, commissioning schedules, load factors and probability-adjusted delays. These demand paths would then be reconciled with dependable generation, maintenance, network constraints, technical losses and reserve margins.

The distinction is between forecasting a number and planning a functioning system.

## The foreign-exchange problem reveals the same analytical gap

SphereX's **Foreign Exchange Leakages in an Emerging Oil Economy** reached a parallel conclusion. Guyana's relevant policy variable is not gross foreign-exchange generation alone, but effective foreign-exchange availability after institutional allocation.

Oil exports can increase dramatically while domestic firms still experience settlement pressure. Petroleum receipts may accumulate offshore in the Natural Resource Fund, support official reserves, finance external services, settle imports or leave through income payments and profit repatriation. The quoted exchange rate can remain stable while the timing and distribution of market liquidity remain constrained.

The SphereX transaction-adjusted diagnostic estimated a USD 78.9mn commercial-bank liquidity-gap signal for 2025 and identified 2024 as the largest gap year in that series. Relative to non-oil GDP, the signal peaked at 14.7% in 2022, remained elevated at 12.6% in 2024 and moderated sharply to 0.8% in 2025. These estimates were explicitly presented as diagnostic signals—not proof of the destination or cause of every residual flow.

The policy significance is nevertheless clear. A gross-inflow framework can report abundance while firms experience constrained access. A national foreign-exchange cash-flow model must therefore trace sources, uses, timing, institutional allocation, banking-system intermediation, domestic retention and external leakage. It must connect fiscal withdrawals, imports, debt service, foreign investment, profit repatriation and commercial-bank balance sheets rather than treating each as an isolated statistic.

This also reinforces the agenda advanced in SphereX's **review of Guyana's financial-market development following the IMF 2026 assessment**. Deeper capital markets, stronger monetary-policy transmission, liquidity management and foreign-exchange oversight are not separate reforms. They form a single macro-financial architecture.

## Procurement shows why expenditure cannot be mistaken for development

The third piece of evidence comes from SphereX's **Public Procurement Concentration and the Resource-Curse Test in Oil-Rich Guyana**. The study analysed 8,490 validated award records across 3,491 normalised supplier groups. It found that 62.6% of suppliers received only one award, while the top decile captured approximately 68.9% of procurement value.

This is not evidence that every repeat award is improper, nor an argument that successful contractors should be penalised. It is evidence of a development-planning question: is the scale of public expenditure producing a sufficiently broad ladder through which firms enter, perform, accumulate capability, secure financing and graduate into larger and more complex work?

A budget can be fully spent while supplier capacity remains shallow. Contracts can be awarded while domestic value retention remains low. Economic activity can increase while imported inputs, foreign services, financing costs and profit repatriation absorb a substantial share of the expenditure. Without measuring additionality, concentration, import content, performance, supplier graduation and lifecycle outcomes, expenditure is too easily treated as its own proof of development.

That is why an economic development impact model must connect public and private investment to incremental value added, permanent and temporary employment, household income, tax effects, import leakage, local procurement, regional distribution, inclusion and productive-capacity formation. Gross spending is an input. Development is the measurable change that remains after the counterfactual, displacement and leakage are considered.

## Why SphereX is building an integrated model

The proposed SphereX architecture responds to this gap by treating the economy as a connected operating system rather than a sequence of standalone sectors. Its five engines share a common data spine, scenario register and reconciliation discipline: the macroeconomic model establishes the national baseline; the development-impact model tests whether growth is becoming domestic capability; the monetary-policy model follows liquidity, credit and inflation transmission; the energy-demand model tests physical system readiness; and the foreign-exchange cash-flow model assesses whether foreign currency is entering, circulating and remaining available where the economy needs it.

The electricity, foreign-exchange and procurement cases are not isolated policy debates. They expose a common deficiency: the absence of an integrated analytical platform capable of showing how one intervention propagates through the wider economy.

SphereX is therefore developing five connected analytical engines: a macroeconomic model; an economic development impact model; a monetary-policy and financial-conditions model; a bottom-up energy-demand and system-readiness model; and a national foreign-exchange cash-flow model. Each model answers a different policy question, but all are connected through shared assumptions, controlled interfaces and scenario reconciliation so that a change in one area is tested against its consequences in the others.

The architecture is deliberate. Faster growth increases household and commercial electricity demand. Energy shortages constrain production and raise costs. Fiscal expansion increases imports, liquidity and demand for foreign exchange. FX conditions affect inflation, investment and business operations. Monetary conditions affect credit and project viability. Procurement and project design determine how much public spending becomes domestic productive capacity rather than pass-through expenditure.

No single model can answer all these questions credibly. Equally, five disconnected models would reproduce the institutional fragmentation the initiative is intended to address. The analytical value lies in the interfaces between them.

## A model cannot substitute for execution

The proper way to understand this initiative is not as a claim of certainty. Models do not eliminate uncertainty, repair weak institutions or execute projects. Their outputs remain conditional on data quality, assumptions, methodological choices and structural stability. An elegant forecast cannot compensate for delayed procurement, weak maintenance, unclear responsibility, fragmented data or decisions taken outside an established governance process.

What a disciplined modelling system can do is make the assumptions visible before the outcome. It can identify where forecast demand and dependable capacity diverge; distinguish gross foreign-exchange inflows from usable liquidity; test whether expenditure is building a broad productive base; quantify downside scenarios; and establish an audit trail against which planning decisions can later be evaluated.

The purpose is not to claim perfect foresight. It is to reduce avoidable surprise.

## The economy has transformed; the planning system must now do the same

Guyana's present challenge is not a shortage of ambition. Nor is it primarily a shortage of financing. It is the widening gap between the complexity of the economy and the analytical and execution capacity of the institutions responsible for managing it.

The current electricity pressure demonstrates why national capacity, peak-hour demand and local network constraints must be planned together. The foreign-exchange evidence demonstrates why gross receipts, reserves and domestic settlement liquidity must be reconciled. The procurement evidence demonstrates why the value of expenditure, the distribution of opportunity and the formation of productive capacity cannot be treated as equivalent measures.

These are different manifestations of the same planning problem.

SphereX's integrated model is being developed as an independent contribution to solving that problem. It will not tell policymakers what they want to hear, nor will it pretend that a spreadsheet can replace judgement. Its purpose is more practical: to establish a disciplined framework through which competing assumptions can be tested, trade-offs can be quantified and the interaction among policies can be understood before costs are imposed on the economy.

**Guyana has already built an economy of unprecedented scale. It must now build a planning architecture equal to that economy.**