Clarification No 01 to Pre-Bid Queries against e-Tender for Procurement of power from Gas Based Power plants by NTPC Vidyut Vyapar Nigam Limited

S.No	Clause No.	Clause	Bidder's Query	NVVN Response
1	Clause 3.0 (vi)	Generation profile Off Peak 50% Peak Hours (1800-2400 Hrs) 100%	1.RFS's condition of technical minimum of 50% is limiting the bid to generators of 200 MW or more capacity only. 2.Smaller size generating plants of lesser than 200 MW cannot be compared with the generators of 200 MW and more, due to the reason that degradation of efficiency /heat rate is much higher at part load operation of smaller capacity GT and Steam turbine. Further technical minimum operation being for 18 hours during the day with full load operation for only 6 hours, average heat rate is very high as compared to bigger capacity generator, so the generators of less than 200 MW are out of the bid. 3.Technical minimum of 50 % in Gas turbine combined cycle is practically feasible for high-capacity Gas Turbines only. At partial load operation of GT, it is like partially open cycle and the heat rate is quite high as compared to combined cycle heat rate, which can't be competitive with combined cycle heat rate. 4.Heat rates for different capacity Gas Turbines a.30 MW x 2 plus STG Module Capacity 90 MW CC HR 2600 Kcal/KWH b.36 MW x 2 plus STG Module Capacity 110 MW CC HR 2400 Kcal/KWH c.75 MW x 2 Plus STG Module Capacity214 MW CC HR 2000 Kcal/KWH d.123 MW x 2 plus STG Module Capacity330 MW CCHR 1920 Kcal/KWH e.200 /250 MWx1 or 2plus STG Module capacity 380 MW / 750 MW CCHR 1800 - 1850 Kcal/KWH 5.Bid requires operation of full load for only 6 hours during the day and 50% of full load (technical minimum of 50%) for 18 Hours. Average PLF during the day is 62.5 %. 6.Part load operation of small size GTs is otherwise also inefficient with high heat rate so small capacity GTs can't compete with bigger size GT. Bigger GTs can operate at 50% capacity efficiently with good heat rate in the range of 1800 to 2000 Kcal. 7.Higher size GT of 250 MW each like F class GTs can reduce up to 50 %. But with the GT of 100 MW range, it is technically not feasible to operate at partial loading / technical minimum of less than 85% and not being commercially competitive due to high heat rate at partial load of 50%. 8.For capacities 100 MW and lesser where half module is contracted further reduction to 50% means practically 25 % of the rated module capacity which is technically not feasible and results to high heat rate. 9.At lower loads (50 % Tech. Minimum of half module) GT load remains in the range of 25% to 30% the rated capacity with inlet bleed heat valve open and modulating the Inlet guide vanes to optimise the combustion and compressor dynamics resulting in high heat rate, so does not work out competitive with combined cycle generation. The Dry Low NOx combustion at 30% of GT load is unstable and chances of trip is high apart from high NOx and very poor heat rate. 10.In CC at 25% of STG load low pressure injection also is not in circuit which further deteriorates the heat rate in low partial loading. 11.RFS do allow for the small quantity of contracted power of 25 MW. But with Small size of machine and further technical minimum of 50 %, it is not possible for small generators of small capacity to compete with higher quantum of power and bigger size GTs. So practically half module and smaller machines are out of competition limiting the bid to only large quantum of power / generators. 12.Please do consider this aspect for giving level field to all the GBPs, by amending the technical minimum condition as follows. a.For bidder less than or equal to 100 MW – Technical minimum of 85% b.For bidder more than 100 MW and less than 200 MW– Technical minimum of 70% c.For bidder more than or equal to 200 MW – Technical minimum of 50%	Provisions of RFS shall prevail
2	Clause 3.0 (viii)	Any energy sold out of contracted capacity shall be counted in the MGO for that GBP plant.	As MGO is only 50%, and beyond 55% of power dispatch, FC is reduced to merely 5%, there seems no rational of imposing this clause of counting sold out of contracted capacity as MGO. There should be no such restriction and MGO as 50% should be independent of any energy sold out.	For generation beyond 105% of the MGO, only 5% of the FC component shall be payable in addition to VC & T&OC. Provisions of RFS shall prevail.
3	Clause 3.0 (x)	Applicable Gas price for payment towards energy supply for each month shall be linked to the Gas price determined considering Monthly average DES West India Marker (WIM) Index published on 16th or next working day of the preceding month. For example, applicable WIM index to be considered for Gas rate for Aug month will be the monthly average DES West India price (AAWIC03) published on 16th July.	WIM Index to be considered for Gas rate for the current month should be as per the GAIL's invoicing practice.	Provisions of RFS shall prevail

4	Clause 3.0 (xi)	The GBP plant may be required to start/stop the plant daily in accordance with the power requirement and cleared schedule. However, Nodal Agency in consultation with NLDC shall endeavour to minimize start/stops.	Though the start up cost is considered, daily start stop detrimental to machines and the machines are not able to achieve the steady rated performances / heat rate. May consider capping the number of starts to rational numbers – not more than one start in a week or may be maximum of two under emergent extreme grid situations. Once GBP is scheduled it should be run to some specified period of at least 72 to 100 Hours	Nodal Agency in consultation with NLDC shall endeavour to minimize start/stops. However, start/stop shall be in accordance with the power requirement and cleared schedule.
5	Clause 4.1	Fixed Charge Component – Upper Ceiling of Rs 2.00 per KWH	The VC of Rs 10.2 is fixed considering the resultant heat rate of about 2138 Kcal / KWH. All the GBPs GTs are of different class and efficiency with the varying normative GSHR from 1850 Kcal /KWH to 2000 or even more. Also, with partial 50% loading of GT, and higher % of auxiliary power consumption at 50% loading for 18 Hours results the average heat rate higher than the fixed heat rate in the RFS. Taxes and Other cost (T&OC) are also as per actual, then where to consider the cost on account of additional heat rate due to partial loading of 18 Hours and higher auxiliary power consumption. Some cost components should be available to account for these additional HR and APC costs or this upper ceiling may be revised to Rs 4.00 KWH.	Provisions of RFS shall prevail
6	Clause 4.1	FC Energy Charges - For generation beyond 105% of the MGO, only 5% of the FC component shall be payable in addition to VC & T&OC.	5% FC beyond MGO is not rational. May be revised to some rational compensation of at least 75%.	Provisions of RFS shall prevail
7	Clause 4.2	Taxes and Other Costs Components and their breakup	Break up is required as per unit of KWH. Understand this is to be worked out from the actual applicable cost of per MMBTU, corresponding to the gas quantity at the basic VC of Rs 10.2 per unit KWH. May please clarify and confirm.	The bidder will be required to indicate each sub-component of T&OC in its bid submission along with justification. T&OC is part of the Tariff structure and the Components of T&OC quoted shall remain fixed throughout the contract period except for the VAT component where Monthly variation as per RfS provision is allowed.
8	Clause 4.2	T&OC certification by Statutory Auditors	May specify the acceptable Statutory Auditor and procedure / documentation required to substantiate the claim on these accounts.	Bidder shall submit certification by Statutory Auditor at the time of bid submission for the justification for components (for each component of T&OC) of Tax and other cost and supporting documents for such certification shall be based on last/ latest invoice within a period of one year. Bidder shall submit the T&OC charges duly certified by Statutory Auditor.
9	Clause 4.3	VC Component WIM Index and INR/USD	For VC determination WIM Index and INR / USD are as per the preceding month. Practically for gas invoicing, INR/USD is applicable as on the date of gas invoicing. So 'Z m' should be considered as on the 16th of the concluding fortnight, rather than preceding months.	Provisions of RFS shall prevail
10	Clause 4.4	Start-up cost	May please clarify the basis of the calculated start up cost formula of 0.5*5.65%. Gas consumption at partial load of GT is not proportional to normative heat rate. It is much higher, in the range of 4000 – 4500 Kcal / KWH during the startup period. Also, during the frequent starts in combined cycle mode, the operational problems may be more prolonging the startup time. May consider reviewing it to increase by at least 10%.	Provisions of RFS shall prevail
11	Clause 4.5 (f)	Liquidated Damages	LD is applicable as 10% of the (FC+VC+T&OC), beyond first 30 blocks in each week. Under unforeseen situations penalty works out about 75% of the FC, which seems quite high. There should be some limit of Liquidated Damages as some situations may be beyond the control of generator. Rationally it should be limited to 5% of the FC corresponding to MGO energy.	Provisions of RFS shall prevail
12	Clause 7.5	Surcharge for late payment – 15% LPSC for the power sold on exchange, For power sale in TRAS – as per applicable regulations.	Power dispatched under TRAS / AS it takes about two weeks for energy account release. Thereafter it is disbursed as per availability of funds in Pool Account. This period of payment disbursal is quite long period considering the high fuel cost which needs to be settled with in 4 days of fortnightly invoicing. No LPSC had been paid to the generator during the last similar power dispatches under April 2023 and April 2024 Crunch period schemes. Payments were abnormally delayed. It becomes unmanageable by the already stressed sector of GBPs. May kindly review the payment mechanism. Regarding LPSC may please clarify under which clause / section of relevant regulations LPSC is payable to generator and may also clarify / mention that under which conditions LPSC is not payable.	Currently, no LPSC is applicable in case of power sale in TRAS.
13	Clause 24.0	Change of Law is not applicable.	All the taxes, statutory and regulated cost components are transparent. FC is also with ceiling. So, any changes to the extent of CTU / STU losses, charges, gas transportation / gas regassification, other tax structure changes should be considered for revision as per changes implemented by statutory / Government / Regulatory bodies.	Provisions of RFS shall prevail

14	Clause 3 (ii) and 3 (iv)	General conditions Cl. (ii)- "Minimum Guaranteed Off- take (MGO) for GBP plant would be calculated as per the requirement specified by NLDC based on estimated crunch days and 50% contracted capacity." Cl(iv) – "For 1800 MW of contracted capacity, Minimum Guaranteed Off-take (MGO) shall be 2997 MU for the crunch period (27 MU per day for 1800 MW, Considering 50% loading for 18 hrs and 100% for 6 hrs in a day). If lesser quantity is contracted, the MGO will reduce proportionately. However, on the day of start-up, daily generation taking into account ramp up will be 25.16 MU per day"	MGO definition in Cl (ii) and the value cited in Cl(iv) of general conditions are ambiguous- 1. Clause (ii) – MGO = number of crunch days and 50% contracted capacity. 2. Clause (iv) for 1800 MW contracted capacity – MGO = (900 *18 + 1800*6) *111 = 2997 MU As per clause ii it should be ((50%* 2997) = 1498.5 MU An example with 100 MW contracted load would provide more clarity.	For 1800 MW of contracted capacity, Minimum Guaranteed Off-take (MGO) shall be 2997 MU for the crunch period ie. 111 days (27 MU per day for 1800 MW, Considering 50% loading for 18 hrs and 100% for 6 hrs in a day). For 100 MW Contracted Capacity, MGO Shall be 166.50 MU during the crunch period. (Considering 50% loading for 18 hours and 100% loading for 6 hours in a day)
15	Clause No 03 Cl(vii)(c),Cl(vii(d) & Cl(vii €	General conditions Cl(vii (c))- " NVVN in consultation with NLDC shall communicate to the GBP plants at least fourteen (14) days in advance about the approximate number of crunch days in the following week of operation on which the gas-based generation is likely to be required in the grid. " Cl(vii(d))- "The GBP plants shall arrange for the gas based on generation profile as emerging from (a), (b) and (c) above." Cl(vii (e))- "During the operating week, NLDC will give confirmation for generation to one or more GBP plant at 0500 hours on D-1 day depending on the available MGO quantum with the generators and requirement of grid."	As per Gen Conditions Clause viic –In advance of 14 days weekly operation will be communicated to one or more generators based on merit order. Again, during the week (Clause viie), NLDC will give confirmation for generation to one or more GBP at 0500 hours of D-1. The fuel planning including CT booking has to be done in advance. Since the schedule is not sacrosanct, the fuel planning can be erratic and can result in penalties. Previous tender, the schedule was provided in 3 days in advance.	Provisions of RFS shall prevail
16	Clause No 03 (xi)	General conditions Clause (xi) – "The GBP plant may be required to start/stop the plant daily in accordance with the power requirement and cleared schedule. However, Nodal Agency in consultation with NLDC shall endeavour to minimize start/stops."	This will have a huge impact on maintenance cost. Do we need to presume that there will be 111 starts? If this is true, the Gas Turbine inspection based on starts criteria would kick in. If the above is true, are the plants are required to be operated 1. Only during peak 2. The Plant has to operate more than 111 days to complete MGO quota.	The plants are required to be operated during both peak and non-peak hours as may be required in accordance with the power requirement and cleared schedule. Nodal agency in consultation with NLDC shall endeavour to schedule the MGO within the contract period. Further, Nodal Agency in consultation with NLDC shall endeavour to minimize start/stops. However, start/stop shall be in accordance with the power requirement and cleared schedule
17	Clause 4.2	Tax and other component (i.e, T&OC component)	As per the RFS the State transmission losses are to be kept constant. State transmission losses vary monthly.	Provisions of RFS shall prevail
18	Clause 4.4	"Start-up Cost (SC): There shall be additional component of Start-up cost (SC) payable to generator for higher gas consumption at start up. In case of start-up. The start-up cost payable shall be payable for energy corresponding to 5.65% of daily PLF for contracted quantum at the tariff mentioned hereunder: Start-up cost per MW of the Contracted Capacity or part there of which has been advised to be started by the nodal Agency (In Rupees) = 0.5 X (VC + gas transportation charge + taxes (GST on regassification and transportation, local VAT) + marketing margin + regasification charges)"	The start- up Cost formula provided – = 0.5 X (VC + gas transportation charge + taxes (GST on regassification and transportation, local VAT) + marketing margin + regasification charges) Needs to be looked into. As there is cap in the FC, the startup cost to be revised to reflect the impact.	Provisions of RFS shall prevail
19	Clause 5.1(g)	"The supplier may be required to start/stop the plant in accordance with the NLDC generation profile and cleared schedule."	No tentative permitted startup schedule/ time to reach schedule load is provided. During Cold Startup, the plant would take 7.5- 8.0 hrs to ramp up to the Contracted load. There is also no mention of number of startup/week or for the contracted period. With out the provision of time to achieve schedule load, the Bidder will land in paying penalties for LD for Availability. Permitted Startup Schedule/ time to reach scheduled load during startup would be required.	Provisions of RFS shall prevail. Reference Start-up curve is attached.
20	Clause 5.1(g)	Market based dispatch and Settlement	NVVN may bid in the TRAS for the capacity not cleared in Power exchange. Clarity will be required to the proportion of scheduling in PEX and ancillary market. This will have impact on payment schedules.	As per RfS 3(g) , Any left-over contracted quantum from GBP plant, which was given confirmation on D-1 day, would be scheduled by NLDC on D-day for grid support under ancillary services (TRAS shortfall).
21	Clause 23.0	Force Majeure	To include if the fuel supplier not be able to maintain pipeline hydraulics i.e, system pressure dropping below the permissible limits of gas turbine operation. 12 days in the month of May 24 & June 24.	Clause 23(iii) provides for force majeure relief in respect of constraint in gas supply infrastrucure. RFS provision shall prevail.
22	Clause 4.1	Fixed Cost	The Variable cost does not cover the impact related to actual heat rate. The related risk must be accommodated in the fixed component. Further the operation and maintenance cannot be recovered with the upper limit proposed. The upper limit of ₹ 2.0/kWh needs to be revisited.	Provisions of RFS shall prevail
23	Clause 23	Forced outage	The forced outage of the equipment is unpredictable. As per the RFS the penal implications are very heavy. Considering the above, Forced outage should be part of Forced Majeure.	Provisions of RFS shall prevail

24	Clause 4.5	Availability	As per Clause 4.5, Availability, LD that would be levied would be as per formula LD = ENSD*0.1*(FC + VC + T&OC) *1000 This implication would be very heavy considering the cost of the fuel and T&OC. There should be an upper cap on the LD limit that can be imposed on the Bidder.	Provisions of RFS shall prevail
25	Clause 3 (ii) and 3(iii)	(ii) Minimum Guaranteed Off-take (MGO) for GBP plant would be calculated as per the requirement specified by NLDC based on estimated crunch days and 50% contracted capacity. MGO for each generator would be allocated in proportion of contracted capacity to the total bid capacity. MGO will be applicable on energy basis only. (iii) The cumulative generation days given by NLDC on provisional basis for the crunch period shall be 111 days. However, the month-wise generation days for gas-based power plant for crunch period shall be provided by NLDC based on requirement and with provision for extension/revision during implementation.	Is the definition of '**crunch days**' as 111 days is still on provisional basis and is liable to change during PPA stage?	Based on the current demand forecast and resource availability, the Grid India has assessed the requirement of operation of Gas Based Plants selected in the scheme for days 111 days. The cumulative generation days given by NLDC on provisional basis for the crunch period shall be 111 days. However, the month-wise generation days for gas-based power plant for crunch period shall be provided by NLDC based on requirement and with provision for extension/revision during implementation. Minimum Guaranteed Off-take (MGO) shall be commensurate to 50% of the contracted capacity.
26	Clause 3(ii) and 3(iv)	(ii) Minimum Guaranteed Off-take (MGO) for GBP plant would be calculated as per the requirement specified by NLDC based on estimated crunch days and 50% contracted capacity. MGO for each generator would be allocated in proportion of contracted capacity to the total bid capacity. MGO will be applicable on energy basis only. (iv) For 1800 MW of contracted capacity, Minimum Guaranteed Off-take (MGO) shall be 2997 MU for the crunch period (27 MU per day for 1800 MW, Considering 50% loading for 18 hrs and 100% for 6 hrs in a day). If lesser quantity is contracted, the MGO will reduce proportionately. However, on the day of start-up, daily generation taking into account ramp up will be 25.16 MU per day.	Please clarify the Minimum Guaranteed Offtake for a GBP. Clause 3(ii) states MGO as 50% of contracted capacity. However, Clause 3(iv) states a generation profile as MGO. Thus, there is a discrepancy among the two clauses.	For 1800 MW of contracted capacity, Minimum Guaranteed Off-take (MGO) shall be 2997 MU for the crunch period ie. 111 days (27 MU per day for 1800 MW, Considering 50% loading for 18 hrs and 100% for 6 hrs in a day). For 100 MW Contracted Capacity, MGO Shall be 166.50 MU during the crunch period. (Considering 50% loading for 18 hours and 100% loading for 6 hours in a day)
27	Clause 3(iv)	(iv) For 1800 MW of contracted capacity, Minimum Guaranteed Off-take (MGO) shall be 2997 MU for the crunch period (27 MU per day for 1800 MW, Considering 50% loading for 18 hrs and 100% for 6 hrs in a day). If lesser quantity is contracted, the MGO will reduce proportionately. However, on the day of start-up, daily generation taking into account ramp up will be 25.16 MU per day.	Is the offtake of 25.16 MU for 1800 MW contracted capacity on the day of start-up fixed for all GBPs to whom the contract is awarded?	The offtake on the day of start up shall be on proportionate basis of contracted capacity and generation profile on the day of start up.
28	Clause 3(vii)(c)	NVVN in consultation with NLDC shall communicate to the GBP plants at least fourteen (14) days in advance about the approximate number of crunch days in the following week of operation on which the gas-based generation is likely to be required in the grid. In such communication, only one or more GBP plant may be identified depending on anticipated requirement of the grid, inter se merit order of the GBP plant and status of actual generation during the contract period till that time vis-avis MGO.	In case of a partial schedule during a day, will the MGO still be satisfied? If a plant doesn't get scheduled for a period equal to MGO during full contract period, will the GBP be reimbursed for the balance period?	MGO shall be for the entire crunch period and on energy basis only. NVVN in consultation with NLDC shall endevour to schedule the MGO within the crunch period.However, the month-wise generation days for gas-based power plant for crunch period shall be provided by NLDC based on requirement and with provision for extension/revision during implementation.
29	Clause 4.4 – Start- up Cost (SC)	Start- up Cost (SC)	A fixed formula for start-up cost is provided. i) However, the start-up cost is linked to type of start-up like hot start / warm start / cold start. The start-up costs should be linked to the type of start-up costs. ii) Also, current SC cost, as per the formula stated, is able to recover only about 20% of the start-up cost and is too low as compared to actual start-up costs. It should be linked to actual start-up costs.	Provisions of RFS shall prevail
30	Clause 7.2 & 7.3 – Billing, Payment and Reconciliation	Billing, Payment and Reconciliation	i) We understand the payment on provisional basis shall be made to the GBP within 1 day of date of payment from power exchange / NLDC. Hence, the payment to GBP is effectively T + 2, considering T + 1 payment mechanism from power exchange / NLDC. Please confirm the above. ii) When will be the 5% amount kept for reconciliation be paid, in terms of number of days from injecting electricity into grid by a GBP. iii) What is the role of monthly billing by the GBP to NVVN.	i) Within 1 (one) business day (Due Date) from date of receipt of the payment from Power exchange (excluding the date of receipt) to NVVN Ii) 5% reconciliation amount shall be paid after the conclusion of contract based on Energy Account(s) and Deviation Settlement Account(s) issued by concerned RPC(s)/ RLDCs/ SLDCs iii)GBP shall raise bill for energy scheduled in power exchange.
31	Clause 7.4	– Revolving Letter of Credit (LC) NVVN shall provide payment security to the seller through Revolving Letter of Credit (LC) of an amount equal to one day of amount payable to the Seller (X+Y+Z) commensurate to Minimum Guaranteed offtake with respect to their contracted capacity.	A revolving LC is to be provided for 1 day of amount payable to seller commensurate with MGO. However, the payment cycle from procurement of gas to provisional payment of energy supplied shall run into 3 days. Hence the value of LC should reflect the energy offtake for 3 days from the GBP.	Provisions of RFS shall prevail
33	Clause 8.4	The bidders shall be required to submit separate technical and price bids. Price bid shall include offer of total capacity, Fixed Cost (FC in Rs. /kWh) and T&OC in Rs. /kWh. It shall also specify the minimum capacity that the bidder is willing to accept in case bid evaluation leads to allocation of capacity lower than that offered by the bidder.	The bidder can also specify the minimum capacity that the bidder is willing to accept in case bid evaluation leads to allocation of capacity lower than that offered by the bidder. Please clarify, in case the minimum capacity that the bidder is willing to accept is different from the total capacity the bidder is willing to offer, will the technical minimum be calculated from the bidder offered capacity or the lower contracted capacity.	Technical minimum level of 50% shall be of the contracted quantum
34	Clause 23 (iii)	Force Majeure	In case of non-availability of gas due to force majeure, the MGO obligation of NVVN is deemed to be fulfilled and even DSM liability if on GBP. In case of force-majeure, the MGO obligation of NVVN should not be deemed fulfilled and no DSM liability on GBP should arise.	Provisions of RFS shall prevail
35	RfS Clause 24	Change in Law	Change in Law is not allowed for the contract period. Change in Law should be allowed for any statutory variations.	Provisions of RFS shall prevail

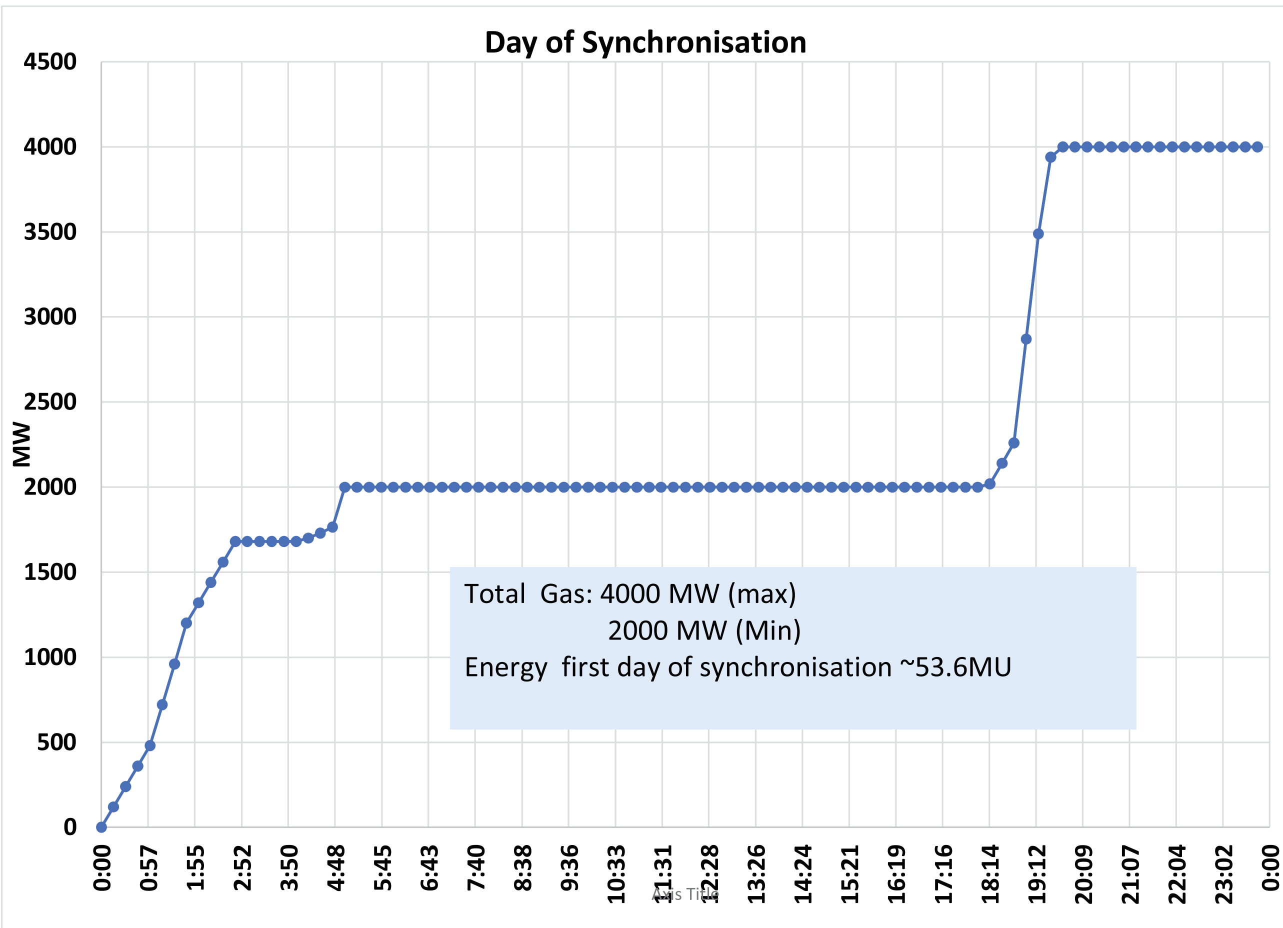
36	PPA – Definitions 7 – Delivery Point	Delivery Point	The Delivery point as specified by Power exchanges for sale in Day Ahead Market or any other market segments as applicable from time to time Please clarify that the same is the nearest STU or CTU connection point for a GBP.	The power shall be sold and delivered by Seller to NVVN at the delivery point as applicable for sale of power in Day Ahead Market in the Power Exchange (ISTS periphery of the region where Seller is connected).
37	Take or Pay on Gas contract	Take or Pay on Gas contract	In case of any take or pay for gas purchase contract, if there is any change in MGO obligations of NVVN towards GBP, how will the take or pay obligations of gas contract be adjusted?	MGO specified in the Contract shall not be subject to change during the period of contract. All liabilities with respect to the Gas including take or pay shall be in the scope of GBP.
38	The clause -2.4	If the capacity being offered is tied up in PPA, Bidder will inform the PPA beneficiaries for bidding of the power during the high demand period and shall not bill fixed charges for the contracted power during this contract period under this scheme.	The above clause implies that beneficiary need not pay fixed charges for 16th March to 15th Oct contract period irrespective of schedule is up to MGO only .The MGO quantum can be combination of no of beneficiaries share and relinquished power share. Since only 5 % of FC will be reimbursed after 105% MGO ,so this clause may be modified as " shall not bill fixed charges for the contracted power scheduled during this contract period under this scheme till 105 % MGO only"	Please refer Amendment-01
39	The Clause-4.5(f)	f) Liquidated damage (LD) for less delivered availability of GBP plant shall be calculated as below: LD in Rs. =ENSD*0.1*(FC + VC + T&OC) *1000 Where FC, VC and T&OC are in Rs/kWh. ENSD in MWh. Provided that no LD shall be applicable for first 30 Blocks in each week	Quote: " IEGC-Regulation-49 subclause-(7) Revision of Declared Capacity and schedule, shall be allowed on account of forced outage of a unit of a generating station or ESS (as an injecting entity) only in case of bilateral transactions and not in case of collective transaction. Such generating station or ESS (as injecting entity) or the electricity trader or any other agency selling power from the unit of the generating station or ESS shall immediately intimate the outage of the unit along with the requisition for revision of Declared Capacity and schedule -----" Unquote: If NVVN offered power is cleared in market, then only revision of schedule is not allowed as per IEGC clause-49 (7). The generator can revise DC due to forced outage. It refers to electricity traders also. Hence LD cannot be imposed in case of forced outage. It is clarified that first 30 Blocks refers to starting from 1st non delivery block which can be intermediate day of the week also. Same may please be confirmed.	LD for non-availability beyond 30 nos. of blocks in week will be applicable as per RfS.
40	3.0 (V)	NVVN in consultation with NLDC shall communicate to the GBP plants at least fourteen (14) days in advance about the approximate number of crunch days based on all India demand and generation availability in the following week of operation on which the gas based generation is likely to be required in the grid. The GBP plants shall accordingly arrange the gas during the said week (Monday to Sunday).	Problem: A mismatch between power scheduling and gas procurement creates an open risk, as any increase in gas prices during the month is not accounted for in the gas pass through formula. This leads to financial uncertainty and potential losses for generators. This time the fixed is not enough to take any risk. Proposed Solution: Gas procurement should be aligned with power scheduling to minimize this risk. Given the volatility in LNG prices, relying on an average WIM price causes discrepancies in the true-up process. Instead, the monthly Weighted Index Market (WIM) price, it should be considered on a fortnightly basis as published. Rationale: Implementing a fortnightly WIM-based pricing mechanism will provide greater transparency and accuracy in cost recovery. Additionally, the Platts report should be made available to successful bidders, ensuring informed decision-making and reducing exposure to price fluctuations.	Provisions of RFS shall prevail
41	3.0 (VII) c	NVVN in consultation with NLDC shall communicate to the GBP plants at least fourteen (14) days in advance about the approximate number of crunch days in the following week of operation on which the gas-based generation is likely to be required in the grid. In such communication, only one or more GBP plant may be identified depending on anticipated requirement of the grid, inter se merit order of the GBP plant and status of actual generation during the contract period till that time vis-a- vis MGO.	What is the relevance/ rationale of this clause if MGO is there?	Provisions of RFS shall prevail
42	3.0 (VIII)	Any energy sold out of contracted capacity shall be counted in the MGO for that GBP plant.	If the GBP is able to sell power for some time block through exchange or bilateral contracts, will we be provided with technical minimum support by Grid India?	In the event GBP is given clearance for scheduling D-1 basis as per RfS provison; support will be applicable in such condition.
43	3.0 (X)	The selected bidders will have to arrange gas on their own. Applicable Gas price for payment towards energy supply for each month shall be linked to the Gas price determined considering Monthly average DES West India Marker (WIM) Index published on 16th or next working day of the preceding month. For example , applicable WIM index to be considered for Gas rate for Aug month will be the monthly average DES West India price (AAWIC03) published on 16th July.	Problem: A mismatch between power scheduling and gas procurement creates an open risk, as any increase in gas prices during the month is not accounted for in the gas passthrough formula. This leads to financial uncertainty and potential losses for generators. This time the fixed is not enough to take any risk. Proposed Solution: Gas procurement should be aligned with power scheduling to minimize this risk. Given the volatility in LNG prices, relying on an average WIM price causes discrepancies in the true-up process. Instead, the monthly Weighted Index Market (WIM) price, it should be considered on a fortnightly basis as published. The gas price shall align with the scheduling of power, i.e., in line with 3(v). Rationale: Implementing a fortnightly WIM-based pricing mechanism will provide greater transparency and accuracy in cost recovery. Additionally, the Platts report should be made available to successful bidders, ensuring informed decision-making and reducing exposure to price fluctuations.	Provisions of RFS shall prevail

44	3.0 (XIII)	No planned maintenance shall be allowed during the identified crunch period.	Problem: When a Gas-Based Power Plant (GBP) operates on an as-and-when- needed basis, it significantly impacts the plant's operational stability. The frequent start-stop nature of operations increases the likelihood of forced outages, making it challenging to maintain reliability. Proposed Solution: To address this issue, plant outages under such operating conditions should be classified as forced outages. This classification ensures that unplanned outages due to intermittent operation are recognized appropriately rather than penalized as avoidable disruptions. Rationale: Recognizing these outages as forced outages will provide fair treatment to the plant operator, acknowledging the operational risks associated with grid-driven scheduling. This approach will also enhance grid stability, ensuring that plants can operate flexibly without undue penalties.	Provisions of RFS shall prevail.
45	3.0 (IV)	The selected Gas based plant can arrange substitute supply from any other gas based generating station without change in tariff and terms and conditions. The responsibility for arranging Gas for substitute supply shall be of the selected Gas Based Plant. The substitute supply source should not be the generator who has also been awarded for supply of power against this tender.	Problem: During a forced outage, power suppliers face difficulties in maintaining their commitments. Proposed Solution: 1. Sellers should be allowed to procure substitute power from any available source during a forced outage. 2. Clarity should be provided on whether additional power from the selected GBP can be used as a substitute, allowing flexibility in power supply management. Rationale: Allowing substitute power procurement and cost adjustments ensures fair treatment of sellers, financial viability, and grid stability. Providing flexibility in using additional GBP power as a substitute will help maintain uninterrupted supply while optimizing available generation capacity.	Provisions of RFS shall prevail.
46	4.1	Fixed Charge Component (i.e., FC Component): FC component shall not be linked to gas price and shall take into account fixed cost associated with the GBP plant and reasonable return. Upper ceiling for FC while quoting the bids: Rs 2.00 per kWh .	Problem: The limited operation of the Gas-Based Power Plant (GBP) makes it difficult to recover essential costs, including O&M and debt servicing. Additionally, the strict terms and conditions of the tender document do not allow for risk adjustments within the fixed cost, further straining financial viability. Proposed Solution: To ensure cost recovery and financial sustainability, the tender conditions should be relaxed. The fixed cost should not be subject to any ceiling, enabling fair compensation for the plant's operational and financial risks. Rationale: Removing the fixed cost ceiling ensures that power generators can cover their essential expenses, maintaining plant reliability and long- term financial health.	Provisions of RFS shall prevail
47	4.1	For generation beyond 105% of the MGO, only 5% of the FC component shall be payable in addition to VC & T&OC.	Problem: The current provision of 5% of the fixed cost is insufficient when the plant operates beyond 105% capacity. It is not even covering working capital interest. Proposed Solution: The fixed cost provision should be revised and delinked with the incremental operation. Rationale: A higher fixed cost provision will enable the plant to efficiently manage fuel procurement, O&M expenses, and other operational costs when running at increased capacity. This adjustment will enhance reliability and prevent financial strain on the operator.	Provisions of RFS shall prevail
48	4.2	Tax and Other costs Component (i.e., T&OC Component): The T&OC component shall include regasification charge, transportation cost, GST on regasification and transportation, local VAT, state transmission charges and transmission losses (if any), Nodal Agency trading margin, Power Exchange charges, marketing margin, SLDC charges as applicable. The bidder will be required to indicate each sub-component of this component in its bid submission along with justification.	Problem: Currently, variation in VAT is allowed only on a monthly basis, which does not reflect the real-time fluctuations in gas procurement costs. This misalignment can create cash flow mismatches and impact the financial planning of generators. Solution:VAT variations should be allowed on an actual basis, aligning with gas procurement to ensure that taxes paid accurately reflect the real-time cost of fuel.	Provisions of RFS shall prevail

49	4.4	Startup cost per unit (SCpu) shall be calculated through the following formula: SCpu (Rs/kWh) = SC (in Rs)/ (Daily profile generation in kWh)	Problem: The actual start-up cost is significantly higher than the Start-Up Cost per Unit (SCpu), leading to an underestimation of the expenses incurred during plant startup. Additionally, there is no clarity for compensating the energy generated during start-up, Please clarify? Proposed Solution: The start-up cost should be increased to accurately reflect the true expenses involved in restarting the plant.	Provisions of RFS shall prevail
50	4.5	No penalty will be applicable for first 30-time blocks in each week with reduced delivered availability. For Availability, a week shall be 7 days period starting from 1st day, 8th day, 15th day and so on, of the high demand period as mentioned in the bid documents.	Problem: The current methodology of considering only the first 30 blocks in a week may not align with the actual operational requirements of the plant. This approach restricts flexibility and does not account for variability in scheduling. Additionally, there is no leniency in cases of forced outages, leading to potential penalties or inefficiencies. Proposed Solution: Instead of limiting the consideration to the first 30 blocks, a total of 30 blocks within the week should be allowed, providing flexibility in scheduling. Furthermore, there should be leniency in cases of forced outages, ensuring that unavoidable operational disruptions do not unfairly impact the generator. Rationale: Allowing flexibility in block selection will help optimize plant operations and reduce scheduling inefficiencies. Additionally, leniency for forced outages will ensure that power producers are not penalized for uncontrollable events, leading to a fairer and more reliable power supply framework.	LD for non-availability beyond 30 nos. of blocks in week will be applicable as per RfS.
51	4.5 (d)	Energy not scheduled for the day due to non-availability ENSD= ∑ENSB	Problem: There is a lack of clarity regarding the tolerance level for availability, creating uncertainty for power generators. Additionally, the current availability threshold may be too high, making it difficult for plants to comply, especially under challenging operating conditions. Furthermore, it is unclear whether Liquidated Damages (LD) apply in cases of forced outages, which could lead to unfair financial penalties for generators. Solution: 1. The availability threshold should be reduced to 80% to ensure a more practical and achievable benchmark for plant operators. 2. A clear definition of tolerance levels should be provided to eliminate uncertainty. 3. It should be explicitly stated whether LD is applicable in cases of forced outages, ensuring that generators are not unfairly penalized for unforeseen operational disruptions. Rationale: Lowering the availability threshold will help power plants operate more realistically within grid conditions while maintaining reliability. Clarifying LD applicability in forced outages will ensure that penalties are fair and justifiable, preventing unnecessary financial strain on generators and maintaining grid stability.	Provisions of RFS shall prevail
52	4.7	NVVN shall be charging a trading margin of Rs. 0.06/KWh (excluding GST) from the Gas Based Power Plants under this scheme for the energy scheduled through various segments e.g. Market, Bilateral or under shortfall provisions of TRAS .	Trading margin of 6 paise should be reduced	Provisions of RFS shall prevail
53	7.2 (VII)	5% of total payment corresponding to minimum Guaranteed offtake shall be kept against the reconciliation amount and shall be released to the generator after the reconciliation. The amount against the same shall be recovered from running bill @5% per bill. LPS shall not be applicable for the above amount.	Problem: The retention of 5% lacks justification, as the Contract Performance Guarantee (CPG) is already submitted to facilitate reconciliation and recovery of any Liquidated Damages (LD). This additional retention amount creates an unnecessary financial burden on the generator. Furthermore, the retention amount is equivalent to the fixed cost. Solution: The 5% retention should be removed, as the CPG already serves the purpose of securing obligations and addressing potential penalties. Instead, a more balanced approach should be implemented to ensure that generators are not unfairly burdened while still maintaining accountability. Rationale: Eliminating the 5% retention will reduce financial strain on power generators while ensuring that LDs and other obligations are adequately covered through CPG. This will improve cash flow stability, making power generation more sustainable and financially viable.	Provisions of RFS shall prevail
54	11.1	In terms of the RfS, a Bidder will be required to deposit, along with its Bid, a bid security of Rs 36,000 (Rupees Thirty-Six Thousand only) per MW of capacity offered by the Bidder (the "Bid Security").	The bid security is on the higher side should be reduced. It creates a cash flow problem	Provisions of RFS shall prevail
55	12.1	The Successful Bidder(s) will furnish CPG for an amount calculated at Rs. 2,00,000 (Rupees Two Lakh only) per MW within 7 days from the date of letter of award by NVVN or prior to start of schedule, whichever is earlier.	The CPG amount is very high and in the absence of BG limited creates cash flow problems	Provisions of RFS shall prevail

56	15.2	The bidders shall be required to submit separate technical and price bids. Price bid shall include offer of total capacity in MW and FC (in Rs/kWh) & T&OC (in Rs./kWh) upto two decimal basis. It shall also specify the minimum capacity that the bidder is willing to accept in case bid evaluation leads to allocation of capacity lower than that offered by the bidder. The Bids shall be strictly as per the terms of RfS and shall be unconditional. Conditional and incomplete bids are liable to rejection.	Problem: Transmission & Other Charges (T&OC) vary across power plants and are beyond the control of Gas-Based Power Plants (GBPs). Factors such as VAT differences among states (ranging from 0% to 15%) and pipeline charge variations across zones (e.g., Zone 1 vs. Zone 3) create cost disparities among power plants. This makes it difficult to ensure fair competition in the bidding process. Solution: To create a level playing field, T&OC should be excluded from the bidding process. Instead, bidding should be based solely on Fixed Cost (FC) rather than FC plus T&OC, ensuring a more equitable evaluation. Rationale: Excluding T&OC from bidding will eliminate cost disparities caused by regional differences in taxation and gas transmission costs, ensuring fair competition among power plants. This approach will encourage more level playing field	Provisions of RFS shall prevail
57	23	Force Majeure means occurrence of any event or circumstance, or combination of events and circumstances stated below that wholly or partly prevents an affected party in the performance of its obligations under PPA. i. Any restriction imposed by RLDC/SLDC in scheduling of power due to breakdown of Transmission/Grid constraint shall be treated as Force Majeure without any liability on either side, subject to documentary evidence. ii. Any of the events or circumstances, or combination of events and circumstances such as act of God, exceptionally adverse weather conditions, lightning, flood, cyclone, earthquake, volcanic eruption, fire or landslide or acts of terrorism causing disruption of the system.	Problem: When a Gas-Based Power Plant (GBP) operates on an as-and-when- needed basis, it significantly impacts the plant's operational stability. The frequent start-stop nature of operations increases the likelihood of forced outages, making it challenging to maintain reliability. Proposed Solution: To address this issue, plant outages under such operating conditions should be classified as forced outages. This classification ensures that unplanned outages due to intermittent operation are recognized appropriately rather than penalized as avoidable disruptions. Rationale: Recognizing these outages as forced outages will provide fair treatment to the plant operator, acknowledging the operational risks associated with grid-driven scheduling. This approach will also enhance grid stability, ensuring that plants can operate flexibly without undue penalties.	Provisions of RFS shall prevail
58	24	Change in Law provision shall not be applicable for this Contract.	Problem: Change in law is a standard clause in any contract and is beyond the control of Gas-Based Power Plants (GBPs). However, if this clause is not incorporated in the contract, any unforeseen regulatory changes or statutory cost variations (such as pipeline charges) may financially burden the generator without a mechanism for recovery. Solution:The Change in Law clause should be explicitly included in the contract to account for statutory cost changes and other components of Transmission & Other Charges (T&OC). For example, if pipeline charges increase during the contract period, this cost should be treated as a Change in Law event and passed through on actuals to prevent undue losses for the generator. Rationale: Incorporating a Change in Law provision ensures that unexpected regulatory changes do not negatively impact generators. A pass- through mechanism for costs beyond the generator's control will provide financial stability, encourage fair competition, and ensure that the contract remains sustainable over its tenure.	Provisions of RFS shall prevail
59	RFS Clause 4.1 Ceiling on FC	**Fixed Charge Component (i.e., FC Component):** FC component shall not be linked to gas price and shall take into account fixed cost associated with the GBP plant and reasonable return. Upper ceiling for FC while quoting the bids: Rs 2.00 per kWh	We humbly request for the removal of ceiling on FC component or suitably revised upwards in the range of Rs. 4.5- 5.00. Rationale: The current ceiling limit of 2 Rs. is not adequate to cover the actual expenses that will be incurred by the GBP after factoring the dynamic nature of operation and operation variation risk	Provisions of RFS shall prevail
60	RFS Clause 4.2 Removing the requirement of break-up subcomponents of T&OC components	… The T&OC component shall include regasification charge, transportation cost, GST on regasification and transportation, local VAT, state transmission charges and transmission losses (if any), Nodal Agency trading margin, Power Exchange charges, marketing margin, SLDC charges as applicable. The bidder will be required to indicate each sub-component of this component in its bid submission along with justification… …Bidder shall submit certification by Statutory Auditors at the time of bid submission for the justification for components (for each component as mentioned above) of Tax and other cost.	We humbly request that the subcomponents of T&OC may be considered on normative basis as it is highly dependent of actual procurement of fuel and its source. Additionally, in case of own gas pipeline of GBPP, the transportation cost should be considered as per normative rate in line with PNGRB Unified tariff Order and Zone as per the distance of the GBPP. Alternatively, as the T&OC is biddable component (without provision for change) and since the parameters provided therein are at time subject to operating regime and different state of purchase, we humbly submit that requirement of individual breakup of subcomponent may be removed and single T&OC calculated by GBP factoring all the associated costs may be asked for submission and certificate from statutory auditor is not required in this. Rationale There are several other cost and parameters which under current Tariff Structure cannot be made part of FC or VC. The breakup of each of the subcomponents before bidding would not be feasible without the known factors (for e.g. Take or pay or ship or pay Liability). Even in the normal Bilateral power sale tenders and the standard bidding guidelines, bidders are required to factor all the applicable statutory and non-statutory charges including taxes and submit a single value for the purpose of bid participation and e-RA.	In case of utilisation of own gas pipeline, applicable unified zonal tariff notified by Hon'ble PNGRB for respective Zone/GBP may be considered in T&OC against transportation cost of Gas.

61	RFS 3.iii Period for Minimum Guaranteed Offtake (MGO) & extension period (if any) shall remain fixed	(iii)The cumulative generation days given by NLDC on provisional basis for the crunch period shall be 111 days. However, the month-wise generation days for gas- based power plant for crunch period shall be provided by NLDC based on requirement and with provision for extension/revision during implementation.	In case of non-offtake of MGO Mus, the extension period should not be more than 10 to 15 days. In case the offtake is not completed as per MGO for the defined period, the GBPP should be paid for the MGO without any further extension. Rationale The same would help GBP to plant their upstream commitments w.r.t fuel supply, Ship or Pay in transportation, utilization of other resources, etc.	Please refer Clause 3 (iii)
62	RFS Clause 3 -v Intimation timeline for requirement of generation	**(v)** NVVN in consultation with NLDC shall communicate to the GBP plants at least fourteen (14) days in advance about the approximate number of crunch days based on all India demand and generation availability in the following week of operation on which the gas based generation is likely to be required in the grid. The GBP plants shall accordingly arrange the gas during the said week (Monday to Sunday).	The timeline for advance intimation of required operating days which is currently 14 Days may be revised for **28/30 days in advance.** Further, In line with the earlier scheme, Intimation on availability may be kept for D-3 Day for ensuring optimized readiness. Rationale As the fuel price will be changed every month, this will help fuel purchase planning, spot fuel prices are also very volatile, help in CT booking with transporters, etc.	Provisions of RFS shall prevail
63	RFS 3.Vii(a) Requirement of Technical minimum operation in case of advance sale	a) Out of the contracted capacity, NVVN would endeavour to sell the power in any segment of the power exchange immediately after signing the contract.	In case of any partial sale of power by Nodal agency in advance bilateral markets, Nodal agency is requested to ensure that technical minimum schedule is available to the GBP, through suitable means like TRAS / Ancillary etc. Rationale power in the market due to pricing limitations. Rationale Technical limitation of the plant needs to be addressed. It is not possible for GBP to sell balance	Provisions of RFS shall prevail
64	3.vii (b) Reduction in Trading margin for electricity which may be sold due to efforts of the GBP	b) The selected GBP plant may also seek avenues for sale of power for part or full crunch period and such sale shall be executed through the Nodal Agency.	Nodal agency may consider reduction of applicable trading margin for electricity sold through additional efforts of GBP. Rationale Trading margin is charged for the purpose for taking care of all the scheduling & operation activities including seeking buyers. Hence if power gets sold with additional efforts of the GBPs, appropriate reduction of Trading margin may be done by Nodal agency for GBP`s efforts for sale of power.	Provisions of RFS shall prevail
65	RES 3.Xiv Substitution of Supply	(xiv)The selected Gas based plant can arrange substitute supply from any other gas based generating station without change in tariff and terms and conditions. The responsibility for arranging Gas for substitute supply shall be of the selected Gas Based Plant. The substitute supply source should not be the generator who has also been awarded for supply of power against this tender	We humbly submit to allow substitute supply source from the generator who has also been awarded for supply of power against this tender. However capacity should not same as already tied up under the contract. Rationale Generator who has participated in the tender and who may be having has spare capacity which is not tied should be allow to supply power as a substitute supply.	Provisions of RFS shall prevail
66	Clause 4.2	Bidder shall submit certification by Statutory Auditors at the time of bid submission for the justification for components (for each component as mentioned above) of Tax and other cost. These documents shall be verified after e-RA (Reverse Auction) and before signing of PPA. Any false/incorrect information shall be dealt with as per clause 11.10 and 12.5 of this RfS.	Need of Certification of Statutory auditor – considering the paucity of time and other complexity , we request to consider the certificate for Auditor rather than Statutory auditor. As the certification from the auditor is already available, the need for verification of the same after e-RA may not be required and can be removed. According , the following may be incorporated "Clause 4.2 ……. [para after the table] …Bidder shall submit certification by Auditors at the time of bid submission for the justification for components (for each component as mentioned above) of Tax and other cost" In place of "Clause 4.2 ……. [para after the table] …Bidder shall submit certification by Statutory Auditors at the time of bid submission for the justification for components (for each component as mentioned above) of Tax and other cost. These documents shall be verified after e-RA (Reverse Auction) and before signing of PPA. Any false/incorrect information shall be dealt with as per clause 11.10 and 12.5 of this RfS"	1. Provisions of RFS Clause shall prevail. 2. With respect to verification of components, Please refer Amendment No 01
67	Clause 4.2	-	Further in the subject tender matter, we would like to clarify that since gas procurement is responsibility of Generator, we are exploring of supplier based on which the taxation / T& OC on the same will vary. We would like to understand that in case T& OC changes, the impact of the same (loss / profit) would be to whose account.	The Components of T&OC quoted shall remain fixed throughout the contract period except for the VAT component where Monthly variation as per RfS provision is allowed.


Day of Synchronisation
4500
4000
3500
3000
2500
2000
1500
1000
500
0
MW
0:00
0:57
1:55
2:52
3:50
4:48
5:45
6:43
7:40
8:38
9:36
10:33
11:31
12:28
13:26
14:24
15:21
16:19
17:16
18:14
19:12
20:09
21:07
22:04
23:02
0:00
Axis Title
Total Gas: 4000 MW (max)
2000 MW (Min)
Energy first day of synchronisation ~53.6MU