

**The list and requirements to the Pre-Feasibility Study / Feasibility Study / PDP / BDEP.
 A determination of a scope of work of the companies participating in the project.
 Appendix [x] for TCP [x]**

Designations:

ID: Input data for the design
 Pre-FS: Pre-Feasibility Study
 FS: Feasibility Study

CU: Customer, (enter Customer name) (including affiliated contractors)
 Inn: PT Innovate Teknologi Group, Contractor (and / or affiliated parties)

E: Execution, development of the item
 A: Amendment and verification
 I: Provision of the initial data for development
 C: Control of provided documentation
 N: Not provided, not applicable

Pre: Preliminary version of issued document
 Adv: Advanced version of issued document
 Fin: Final version of issued document

Term:
 X- date of project start (contract signing)
 X+n- number of weeks since "X" date

The document is provided for reference. Exact conditions must be coordinated between the Parties at Agreement conclusion stage.

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Table 1. Distribution of works on documentation, Feasibility Study content, scope of works of the Contractor, dates of documents provision.

No.	Title of the document / description	ID	FS		Term		
		CU	Inn	CU	Pre	Adv	Fin
1	Basic provisions						
1.1	List of project documents		E		-	-	
1.2	List of standards (normative documents)		N		-	-	
1.3	List of symbols of the graphic part (if applicable)		E		-	-	
1.4	List of units of measurement		E		-	-	
2	Technology development		N				
3	Process						
3.1	<p>Development of processing concept, including, but not limited to:</p> <ul style="list-style-type: none"> - Block flow diagrams (BFD) for 2 processing schemes max; - Description of processing schemes (based on BFD); - Picking of appropriate design capacity/throughput for installation; - Selection the number of working hours per year; - Analysis of raw materials availability, composition, hazard level and other notable features; - Estimation / confirmation of products and by-products quality and amount; - List of required energy resources and reagents (i.e., electricity, natural gas, water, nitrogen etc.), estimation of its consumptions for each processing scheme. - Development of key equipment pieces and its parameters (throughput, material execution, technological parameters). 	I	E				

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No.	Title of the document / description	ID	FS		Term		
		CU	Inn	CU	Pre	Adv	Fin
4	Commercial part						
4.1	Selection of suitable process licensors / suppliers for each block (work is being done based on the data from opened sources).		E	C	-	-	
4.2	Selection of suitable suppliers for each processing block (either as package supply, or as individual pieces of equipment to fully cover the BFD scheme).		E	C			
4.3	Requesting suppliers for cost of equipment pieces (inside battery limits). In case of long answer – estimation of equipment prices based on formulas and references.		E	C			
4.4	Estimation of OSBL equipment cost (based on coefficients method and references).		E	C			
4.5	Definition of products and by-products market prices based on opened sources. Market investigation is not carried out.		E	C			
4.6	Second round of CAPEX estimation.		E	C			
4.7	First round of OPEX estimation.	I	E				
4.8	Financial model development for each processing scheme (IRR, NPV and DPP).		E	C			
4.9	Economical efficiency estimation for each processing technology/scheme.		E	C			
4.10	Comparison of proposed/developed technologies (2 options). Selection of the most beneficial one with proper justification.		A	E			

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