



**Biological Compact Wastewater Treatment Stations without Sludge Digestion
(without Reutilization of Methane)**

QUESTIONNAIRE FOR IMPORTANT PROJECT DATA

desirable information are marked with red colour

The present questionnaire is intentionally very extensive to give the customer the possibility to forward as much information as possible, which support a project-specific revision of the enquiry. We are conscious that not all information is available or could only be determined by time-consuming investigations. In such cases, we would like to ask you to answer only the red marked questions, which are necessary for comprehension of the project.

Even if not all of the red marked questions could be answered, the questionnaire should be resent to us. Conversationally with the customer open questions can be answered so that an offer or a project proposal can be prepared on our part.

1. Basic Information

1.1	Customer's project code / Project no.:		
1.2	Country of installation / town:		
1.3	Your name:		
1.4	Company name:		
1.5	Address:		
1.6	Phone no. / mobile phone no.:		
1.7	E-mail-address:		
1.8	Skype:		
1.9	Background of your enquiry:	<input type="checkbox"/> public tendering <input type="checkbox"/> selective tendering <input type="checkbox"/> direct allocation <input type="checkbox"/> only general enquiry for a later selection of suppliers <input type="checkbox"/> only general interest <input type="checkbox"/> others:	
1.10	Scope of performances, which should be offered together:	<input type="checkbox"/> turnkey overall performance <input type="checkbox"/> technical equipment and detailed planning <input type="checkbox"/> basic planning and delivery of the technical plant-equipment <input type="checkbox"/> others:	



1.11	Project financing:	<input type="checkbox"/> public funds <input type="checkbox"/> private funding <input type="checkbox"/> Supplier must co-finance <input type="checkbox"/> all incl. construction <input type="checkbox"/> only its performances <input type="checkbox"/> others:																																									
1.12	Aim of offer:	<input type="checkbox"/> as cheap as possible (criterion of allocation) <input type="checkbox"/> low cost, but good quality <input type="checkbox"/> first class equipment <input type="checkbox"/> others																																									
1.13	Distribution of performances in case of order: (the customer could also be a local cooperation partner or a general contractor)	<table border="1"> <thead> <tr> <th data-bbox="775 685 1214 779">Activity</th> <th data-bbox="1214 685 1350 779">Biogest Int.</th> <th data-bbox="1350 685 1461 779">Customer</th> </tr> </thead> <tbody> <tr> <td colspan="3" data-bbox="775 779 1214 819">Planning concept</td> </tr> <tr> <td data-bbox="775 819 1214 860">General design</td> <td data-bbox="1214 819 1350 860"><input type="checkbox"/></td> <td data-bbox="1350 819 1461 860"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 860 1214 900">Detailed design</td> <td data-bbox="1214 860 1350 900"><input type="checkbox"/></td> <td data-bbox="1350 860 1461 900"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 900 1214 940">planning of structural framework</td> <td data-bbox="1214 900 1350 940"><input type="checkbox"/></td> <td data-bbox="1350 900 1461 940"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 940 1214 981">approval planning</td> <td data-bbox="1214 940 1350 981"><input type="checkbox"/></td> <td data-bbox="1350 940 1461 981"><input type="checkbox"/></td> </tr> <tr> <td colspan="3" data-bbox="775 981 1214 1021">Production of technical equipment</td> </tr> <tr> <td data-bbox="775 1021 1214 1061">Assembly of technical equipment</td> <td data-bbox="1214 1021 1350 1061"><input type="checkbox"/></td> <td data-bbox="1350 1021 1461 1061"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 1061 1214 1102">Assembly supervision (supervisor)</td> <td data-bbox="1214 1061 1350 1102"><input type="checkbox"/></td> <td data-bbox="1350 1061 1461 1102"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 1102 1214 1142">Start-up</td> <td data-bbox="1214 1102 1350 1142"><input type="checkbox"/></td> <td data-bbox="1350 1102 1461 1142"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 1142 1214 1182">Initial operation</td> <td data-bbox="1214 1142 1350 1182"><input type="checkbox"/></td> <td data-bbox="1350 1142 1461 1182"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 1182 1214 1223">Operation for months</td> <td data-bbox="1214 1182 1350 1223"><input type="checkbox"/></td> <td data-bbox="1350 1182 1461 1223"><input type="checkbox"/></td> </tr> <tr> <td data-bbox="775 1223 1214 1294"></td> <td data-bbox="1214 1223 1350 1294"><input type="checkbox"/></td> <td data-bbox="1350 1223 1461 1294"><input type="checkbox"/></td> </tr> </tbody> </table>	Activity	Biogest Int.	Customer	Planning concept			General design	<input type="checkbox"/>	<input type="checkbox"/>	Detailed design	<input type="checkbox"/>	<input type="checkbox"/>	planning of structural framework	<input type="checkbox"/>	<input type="checkbox"/>	approval planning	<input type="checkbox"/>	<input type="checkbox"/>	Production of technical equipment			Assembly of technical equipment	<input type="checkbox"/>	<input type="checkbox"/>	Assembly supervision (supervisor)	<input type="checkbox"/>	<input type="checkbox"/>	Start-up	<input type="checkbox"/>	<input type="checkbox"/>	Initial operation	<input type="checkbox"/>	<input type="checkbox"/>	Operation for months	<input type="checkbox"/>	<input type="checkbox"/>		<input type="checkbox"/>	<input type="checkbox"/>		
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1.14	Important dates: a) Delivery of quotation until: b) Date of submission: c) Project realization (time frame):																																										
1.15	Competition:	<input type="checkbox"/> unknown <input type="checkbox"/> not existing <input type="checkbox"/> it is:																																									
1.16	Warranty period:	<input type="checkbox"/> unknown <input type="checkbox"/> months after delivery																																									



1.17	Quotation should be addressed:	<input type="checkbox"/> to above-mentioned address <input type="checkbox"/> to following address:
1.18	Additional project information: (site plans, preliminary design, project descriptions, photos etc.)	<input type="checkbox"/> attached <input type="checkbox"/> not attached <input type="checkbox"/> could be requested <input type="checkbox"/> coordinates of the town at Google Earth: <input type="checkbox"/> coordinates of the WWTP-site at Google Earth:
1.19	Who is asking for the quotation:	<input type="checkbox"/> planning office <input type="checkbox"/> local authorities <input type="checkbox"/> general contractor <input type="checkbox"/> investor <input type="checkbox"/>

2. Detailed Information regarding the WWTP-Project

2.01	General aim:	<input type="checkbox"/> new building (free area available) <input type="checkbox"/> extension of an existing plant <input type="checkbox"/> reconstruction of an existing plant <input type="checkbox"/> others:
2.02	Short project description: (e. g. settlement, hotel, village, district, industrial facility, holiday centre etc.)	
2.03	Geographic location, altitude:	
2.04	Kind of wastewater respectively origin of wastewater:	<input type="checkbox"/> domestic <input type="checkbox"/> industrial <input type="checkbox"/> mixed % domestic % industrial <input type="checkbox"/> usual structure of a town settlement
2.05	If industrial facilities do exist, please name it:	



2.06	<p>Do these industrial facilities possess an own pre-treatment station for wastewater?</p>	<input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> following information must be considered: <input type="checkbox"/> unknown – must not be considered
2.07	<p>Further features of the project: (e. g. only temporary solution respectively long-term investment, gradual extension etc.)</p>	<input type="checkbox"/> unknown <input type="checkbox"/> please consider following information:
2.08	<p>Final connection load of the WWTP: (Number of persons respectively equivalent persons) (equivalent persons = sum of persons and equivalent pollution load / business)</p>	<input type="checkbox"/> unknown – please make an assumption <input type="checkbox"/> max. persons (inhabitants) <input type="checkbox"/> calculated equivalents: P.E.
2.09	<p>Initial connection load: (e. g. number of persons at start-up of the WWTP)</p>	approx. persons / inhabitants
2.10	<p>Reaching of final connection load:</p>	in years resp. approx. up to years after start-up
2.11	<p>Seasonal load variations: (p.e. = sum of persons and add. load resulting short term "p.e." = population equivalent)</p>	<input type="checkbox"/> unknown <input type="checkbox"/> appear rarely <input type="checkbox"/> considerable <input type="checkbox"/> minimum P.E. max. P.E.
2.12	<p>Reason of seasonal variations:</p>	
2.13	<p>Kind of sewage system:</p>	<input type="checkbox"/> separated system (rainwater is drained separately) <input type="checkbox"/> mixed system (water is discharged into the sewage system) <input type="checkbox"/> combined system (partially (illegal) discharge of rainwater into the sewage system) <input type="checkbox"/> additional information:
2.14	<p>Specific wastewater quantities at typical domestic settlements: (holiday estates, apartment-compounds, hotels etc.)</p>	<p>Sewage quantity per person: l/person x d (usual values between 150 – 300 l/person and day – depending on social structure)</p>



<p>2.15</p>	<p>Resulting wastewater quantity at dry weather: <small>(this information is not necessarily required – calculation will be done by Biogest)</small></p>	<p><input type="checkbox"/> should be calculated by Biogest</p> <p><input type="checkbox"/> wastewater (Q_s) = m^3/d</p> <p><input type="checkbox"/> max. peak inlet (Q_f) = m^3/h = l/s</p> <p>Infiltration is expected? <input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown</p> <p><input type="checkbox"/> daily quantity of wastewater during dry weather (Q_d) = m^3/d</p> <p><input type="checkbox"/> hourly peak inflow during dry weather (Q_s) = m^3/h</p>
<p>2.16</p>	<p>Wastewater quantity at rainy weather:</p> <p>In case of a combined sewer system a storm-water overflow exists upflow of the future wastewater treatment plant:</p> <p>Resulting max. inflow at rainy weather towards the WWTP:</p>	<p><input type="checkbox"/> no important difference to dry weather as it is a separated sewer system</p> <p><input type="checkbox"/> peak inflow per hour = <input type="checkbox"/> $\times Q_s$ <input type="checkbox"/> unknown</p> <p><input type="checkbox"/> yes <input type="checkbox"/> no <input type="checkbox"/> unknown</p> <p><input type="checkbox"/> unknown resp. hardly to estimate</p> <p><input type="checkbox"/> inlet quantity is limited to m^3/h</p>
<p>2.17</p>	<p>Pollution loads for dimensioning: <small>(internationally standard are 60 gBOD₅/person x d, 11 gTKN/person x d as well as 2 gP/person x d)</small> <small>(customary features have to be considered)</small></p>	<p><input type="checkbox"/> no specific information available, please use international standard values</p> <p><input type="checkbox"/> BOD₅-load per person = $g\ OD_5/EW \times d$</p> <p><input type="checkbox"/> daily BOD₅-load (B_d, BOD_5) = $kg\ BOD_5/d$</p> <p><input type="checkbox"/> daily COD-load (C_d, COD) = $kg\ COD/d$</p> <p><input type="checkbox"/> daily N-load (N_d, NH_4-N) = $kg\ NH_4-N/d$</p> <p><input type="checkbox"/> daily P-load (P_d, PO_4-P) = $kg\ PO_4-P/d$</p>
<p>2.18</p>	<p>Additional important substances in the wastewater: <small>(e. g. sand, fat, flow rates from pools, concentrates from desalination plants)</small></p>	<p><input type="checkbox"/> yes, please consider the following:</p> <p><input type="checkbox"/> not remarkable <input type="checkbox"/> unknown</p>
<p>2.19</p>	<p>Type of inflow of the treated wastewater into the receiving water:</p>	<p><input type="checkbox"/> direct discharge into a local recipient (stream, lake, sea)</p> <p><input type="checkbox"/> no discharge into a receiving water but into a public canal, which is connected to a downstream WWTP</p> <p><input type="checkbox"/> Please consider the following characteristics:</p>



<p>2.20</p>	<p>Further use of the treated wastewater:</p>	<p><input type="checkbox"/> not preferred, only discharge as described</p> <p><input type="checkbox"/> Wastewater is partly reused m³</p> <p><input type="checkbox"/> Use for irrigation</p> <p><input type="checkbox"/> Desinfection of the treated wastewater:</p> <p style="padding-left: 20px;"><input type="checkbox"/> necessary <input type="checkbox"/> not necessary</p> <p><input type="checkbox"/> Type of desinfection: <input type="checkbox"/> Chlorine <input type="checkbox"/> UV</p> <p style="padding-left: 20px;">others:</p> <p><input type="checkbox"/> other reuse of the treated wastewater:</p>
<p>2.21</p>	<p>Local recipient: (Final receiving water in case a discharge into a following sewer system is not planned))</p>	<p>Kind (lake, river, stream, ditch etc.):</p> <p style="border-left: 1px solid black; padding-left: 5px;">Name:</p> <p style="border-left: 1px solid black; padding-left: 5px;">quality of waters:</p> <p style="border-left: 1px solid black; padding-left: 5px;">flow quantities (MNQ): m³/s</p> <p style="border-left: 1px solid black; padding-left: 5px;">max. inlet quantity into the recipient: l/s</p>
<p>2.22</p>	<p>Discharge Conditions (Limit values for treated wastewater):</p>	<p><input type="checkbox"/> unknown</p> <p><input type="checkbox"/> German standards</p> <p><input type="checkbox"/> following limit values apply:</p> <p style="padding-left: 40px;">mg BOD₅/l mg P_{total}/l</p> <p style="padding-left: 40px;">mg COD/l mg TKN/l)</p> <p style="padding-left: 40px;">mg NH₄-N/l mg NO₃/l</p> <p style="padding-left: 40px;">total suspended solids: mg/l</p> <p style="padding-left: 40px;">pH-value:</p> <p style="padding-left: 40px;">max. discharge quantity: l/s</p> <p><input type="checkbox"/> others:</p>
<p>2.23</p>	<p>Preferred treatment technology:</p>	<p><input type="checkbox"/> no precondition, free planning possible</p> <p><input type="checkbox"/> biological treatment stage as</p> <p style="padding-left: 20px;"><input type="checkbox"/> activated sludge plant</p> <p style="padding-left: 20px;"><input type="checkbox"/></p> <p><input type="checkbox"/> activated sludge plant realized as</p> <p style="padding-left: 20px;"><input type="checkbox"/> continuous flow plant</p> <p style="padding-left: 20px;"><input type="checkbox"/> SBR-plant</p>



2.24	Preferred Plant Structure:	<input type="checkbox"/> one lane <input type="checkbox"/> two lanes <input type="checkbox"/> according to Biogest recommendation <input type="checkbox"/>
2.25	Treatment of biological sewage sludge: a) Aim of disposal: b) Required quality of sewage sludge: c) Sludge tank for storing of sludge: d) Requested resp. required sludge storage time within the sludge tank: e) Thickening aim of the stored sludge within the sludge tank: f) Dewatering of sludge: g) Disinfection of the excess sludge:	<input type="checkbox"/> no information available <input type="checkbox"/> please consider following requirements: <input type="checkbox"/> agriculture <input type="checkbox"/> depositing area <input type="checkbox"/> composting <input type="checkbox"/> incineration/firing <input type="checkbox"/> others: <input type="checkbox"/> mostly stabilized (no odor) <input type="checkbox"/> stabilization is not necessary but odor-free storage on site <input type="checkbox"/> yes (recommended) <input type="checkbox"/> number <input type="checkbox"/> no, due to approx. days resp. months <input type="checkbox"/> thickening onto approx. % dry substance (DS) <input type="checkbox"/> as much thickening so that transport with tankers is possible and economically <input type="checkbox"/> yes, necessary <input type="checkbox"/> onto % dry substance (DS) <input type="checkbox"/> drying beds are sufficient <input type="checkbox"/> mechanical dewatering necessary <input type="checkbox"/> please give a recommendation <input type="checkbox"/> respective requirement unknown <input type="checkbox"/> not necessary <input type="checkbox"/> yes, must be considered



2.26	<p>Conditions of inflow to the WWTP:</p>	<input type="checkbox"/> unknown <input type="checkbox"/> free inflow (free flow channel) approx. m below ground <input type="checkbox"/> pressure pipe coming from an existing pumping station within the settlement area <input type="checkbox"/> pressure pipe-diameter: DN <input type="checkbox"/> max. inlet flow (discharge quantity) from the existing pumping station: l/s <input type="checkbox"/> pumping station as initial plant component of the future WWTP required (caused by a inlet depth of approx. m below ground) <input type="checkbox"/> pumping station is not required, due to a sufficient hydraulic gradient off he area (<input type="checkbox"/> topographische Karte ist beigefügt)
2.27	<p>Existing treatment facilities: (for potential further use)</p>	<input type="checkbox"/> no, free planning/design is possible <input type="checkbox"/> available is / are <input type="checkbox"/> sketch / plan is attached
2.28	<p>Protection, Cover, Roofing:</p>	<input type="checkbox"/> not preferred <input type="checkbox"/> following parts have to be covered:
2.29	<p>Preferred type of roofing:</p>	<input type="checkbox"/> dome roof made of fibre glass <input type="checkbox"/> earth covered tanks with fitted operation building <input type="checkbox"/> neutral gable roof <input type="checkbox"/>
2.30	<p>Type of ground conditions for the future WWTP:</p>	<input type="checkbox"/> unknown soil features <input type="checkbox"/> trouble-free foundations possible <input type="checkbox"/> hindered foundation conditions (heavy soil, rock etc.) <input type="checkbox"/> ground water approx. m below ground level <input type="checkbox"/> others:
2.31	<p>Land and Property Conditions: (Location of the future WWTP)</p>	<input type="checkbox"/> not yet known <input type="checkbox"/> even course of the ground <input type="checkbox"/> see attached hand-sketch with indication of inlet and outlet positions <input type="checkbox"/> sloped ground with m height difference (sketch or topographic card must be attached)



2.32	Architecture of the WWTP:	<input type="checkbox"/> only functional building <input type="checkbox"/> max. height of buildings m above ground <input type="checkbox"/> other important requirements:
2.33	Distance to housing compounds respectively to areas of settlement:	<input type="checkbox"/> approx. m <input type="checkbox"/> kind of development: <input type="checkbox"/> following demands must be fulfilled for protection of the development:
2.34	Electrical engineering / plant control:	<input type="checkbox"/> Volt three phase current <input type="checkbox"/> cycles (Hz) <input type="checkbox"/> with telephone dialer (transfer of fault indication) <input type="checkbox"/> with SCADA-system <input type="checkbox"/> specific regulations <input type="checkbox"/> VDE / UVV / DIN <input type="checkbox"/> <input type="checkbox"/> language of control panel <input type="checkbox"/> German <input type="checkbox"/> English <input type="checkbox"/> <input type="checkbox"/> outdoor installation <input type="checkbox"/> indoor installation <input type="checkbox"/> others:

3. Final Information

3.01	Kind of project realization:	<input type="checkbox"/> local general contractor builds the WWTP in cooperation with Biogest International <input type="checkbox"/> draft planning of the WWTP, detail planning and delivery of the technical equipment by Biogest International <input type="checkbox"/> Biogest must appear as general contractor and perform a turn-key total <input type="checkbox"/> other request for realization:
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3.02	Requested scope of offer:	<input type="checkbox"/> above all draft proposal (plant idea) <input type="checkbox"/> draft proposal with budget offer for planning and technical equipment <input type="checkbox"/> binding offer, ready for allocation <input type="checkbox"/> other requests:
3.03	Requested date for offer:	<input type="checkbox"/> as soon as possible <input type="checkbox"/> until
3.04	Chance for realization:	<input type="checkbox"/> only feasibility study <input type="checkbox"/> concrete project <input type="checkbox"/> realization in year:
3.05	Responsible environmental authority: (approval authority)	<input type="checkbox"/> Name and seat: <input type="checkbox"/> responsible person (if known):
3.06	Requested language of quotation:	<input type="checkbox"/> German <input type="checkbox"/> English <input type="checkbox"/>
3.07	Request for forwarding:	<input type="checkbox"/> by e-mail <input type="checkbox"/> by fax <input type="checkbox"/> by express-mail <input type="checkbox"/>
3.08	Inclusion of a commission:	<input type="checkbox"/> not necessary (we calculate it) <input type="checkbox"/> % <input type="checkbox"/> €
3.09	Other requests or information:	

..... (Place) (Date)



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