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| Vienna, 23 February 2015  SG/JASPERS/2015-172/DT/kk | |
| **Closure Note** | **Czech Republic – Complete Reconstruction of Extension of CWWTP on Cisarsky Ostrov, Part 1 – New Wastewater Treatment Line including Connection**  ***(jaspers project 2006 070 cz env wat*)** |

1. **Introduction**

This note is provided on the request of the Ministry of Environment and contains final feedback on the received responses from the Project Beneficiary (27th January 2015) on the draft JASPERS Action Completion Note that was issued on 12th December 2014. The previous JASPERS involvement in this proposed project culminated with the issuing of Action Completion Note on 23rd January 2012. The subsequent JASPERS involvement in the re-presented project commenced in June 2014 and involved three project meetings and the issuing of three Guidance Notes. The intended Application Document was submitted for JASPERS’ review on 3rd December 2014, from which the draft Action Completion Note was issued, highlighting the following “significant outstanding issues”:

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|  | **Area** | **Significant Outstanding Issue** |
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| 1 | Project Objectives | * No demonstration within the main Application Documents that the current operations do not satisfy the requirements of the Urban Wastewater Directive. |
| 2 | * Preparedness regarding the 2nd stage of project implementation for the reconstruction of the existing water line. |
| 3 | * Misinterpretation of the Water Framework Directive regarding temporary discharge derogations. |
| 4 | Option Analysis | * Optimisation of options examined and acceptability of the preferred option. |
| 5 | * Inconsistency and understatement of treatment capacities in the examined options. |
| 6 | * Inconsistencies in capital and operating costs. |
| 7 | Technical Aspects | * Incompatible technical solution with the results of the option analysis. |
| 8 | * Overcapacity and non-optimised design. |
| 9 | Project Costs | * Overstatement of capital costs for the new water line. |
| 10 | EIA Procedures | * Main Building Permits, in the Czech context representing the final stage of a multi-stage EIA procedure are missing. |
| 11 | Economic Evaluation | * Inconsistent investment costs and exclusion of replacement costs and the residual value in determining economic viability. |
| 12 | Financial Analysis | * The project fails to meet financial (cash) sustainability criteria with this also resulting in an overstatement of the funding gap rate. |
| 13 | * Inconsistent investment costs used in the calculation of the funding gap rate. |
| 14 | Project Financing | * Commitment for financing the full project remains unclear and in total, as currently specified, would require some € 260 million of direct financing from the City. |
| 15 | Procurement and Timetable | * Poorly demonstrated functionality arguments and strong degree of delays (implementation / procurement) of works allocated to Phase I (OPE – 2007 – 2013). |
| 16 | * Validity of the awarded construction contract for Stage 0001 : New Water Line. |
| 17 | * High contract value for construction supervision services. |
| 18 | Institutional / Operational | * Lack of details in agreement for changing the operating mode and agreement, together with unclear degree of commitments. |

Owing to the above listed outstanding issues and based on the information provided within the Application Documents, the JASPERS’ draft Action Completion Note concluded that “*JASPERS is not in a position to endorse the proposed project for the enhancement of wastewater treatment as either an efficient or a cost effective (least cost) solution to meet the long term wastewater treatment needs for the City of Prague*”. The response of the Project Beneficiary to the draft Completion Note, as received on 27th January 2015, comprised detailed replies to the above outstanding issues as well as other JASPERS comments and also provided a large volume of (supporting) attachments. An initial reply (email of 6th February) highlighted that in JASPERS’ opinion, the received responses, together with the detailed supporting attachments, were not sufficient to change the overall JASPERS opinion on the appropriateness of the proposed project. The email, in particular, noted that following:

*“we can summarise our current feed back to the comments in three categories outlined below.*

1. *The information was available but JASPERS did not find it*

*In this respect, in drafting the Completion Note we based our comments on the documents that will actually be presented as part of the Application and not on comments received on replies to Guidance Notes and past studies that are not referenced as attachments to the Application Form.  In most instances where this type of comment was made in the Completion Note referred to fundamental information that we (as was the case in all other applications in the Czech Republic) would expect to be included in the main body of the Application documents.  If this information is available we would have recommended that the Beneficiary includes this, in a simple and concise manner, in the relevant section of the Application Form.  This advice we have repeatedly given.  This would have resolved several of our identified outstanding issues.  However, we also note that in some instances, where reference is made in the response to the available data – the reference is not to the data / information that is actually missing;*

*2. Technical differences*

*These largely remain those we have often discussed in the past. These include the purpose of option analysis (we noted in the Completion Report that the proposed project is closest to Option 3 – which is not one of the similar costs options identified in their response), capacity / loading of the plant (we and you have repeatedly mentioned 1.6 million PE) and possible technologies for the existing treatment plant (namely pre-precipitation that despite the identified problems highlighted in the Beneficiary’s response is proposed for the new line, but yet in the response this process is not a possible option for the existing line);*

1. *Inconsequential replies*

*These mainly relates to comments on the financial analysis, for which the reply that we are obliged to use the FEA model should not be seen as appropriate in responding to comments relating to the issues concerning the specific output of the model for this project and the arising sustainability concerns.  (Our comments did not question the validity of the model itself).”*

At the subsequent request of the Ministry of Environment, this Closure Note substantiates on the above generalised comments, with details provided based on the abovementioned areas of the JASPERS email. As a result of JASPERS’ opinion and the received comments, it is understood that the proposed project will not be submitted for financial support from the 2007 - 2013 Cohesion Fund Operational Programme.

1. **Detailed Justification**
2. **Project Objectives**

The responses to the three significant outstanding issues under this section are not seen as sufficient to change JASPERS’ position:

* Although it is recognised that the current CWWTP does not meet the requirements of the Urban Wastewater Directive, the supporting information continues not to be made available. The stated reference in the Beneficiary response mainly provides information on the incoming load and not to the sufficiency of treated effluent discharges to demonstrate non-compliance. This information is required to establish (i) the overall project’s need and (ii) the magnitude of the problems to allow opinions to be made on the appropriateness of the technical solution. The issue could have been simply resolved by the inclusion of data showing effluent discharge levels for the required pollution indicator parameters that have been achieved in recent years;
* The Application Documents state that compliance with the Urban Wastewater Directive is only possible after the completion of the new line and reconstruction of the existing line. Concerning the rehabilitation of the existing line, no design details are made available and implementation commitment is only supported by a general letter of intent from the City of Prague that neither includes a schedule for implementation, an indication of what is proposed, nor references the potential cost and financing requirements. The responses do not provide any further information, and continue to support the claimed sufficiency of the previous information (Appendix E.4 – that is not explicitly referenced in the original documents). An implementation schedule and full financial commitment of the City to a known amount and confirmed design / capacity would partially overcome this issue.
* Concerning the possibly of obtaining a temporary derogation for effluent discharges that could allow other development options to be explored, the argument that this would not be permitted by the State Authorities is reiterated within the responses. Within the Documentation, (i) no evidence of this opinion is provided and more importantly (ii) an analysis of potential impacts to the Vltava is not provided. Since the granting of temporary derogations is a standard international practice, JASPERS had previously advocated that potential engineering scenarios where derogations would have been required should have been examined together with an analysis of impact on the Vltava River.

1. **Option Analysis**

The responses to the raised significant outstanding issues are not seen sufficient to change JASPERS’ position:

* No arguments are presented in the response to counteract the JASPERS’ option (based on information in the Application Documents) that on a per unit cost basis, rehabilitation of the existing line is a more cost effective solution than construction of a new line, within the reasonable capacity limits of the existing line. This issue therefore remains open.
* The JASPERS’ comment relates to the comprehensiveness of the options examined within the agreed framework of allocation of capacities between the new and existing lines to meet the required total capacity. Since the use of pre-precipitation (as currently employed in the Prague CWWTP and proposed for the new water line) and temporary discharge derogations are standard (international) practices, it is considered logical that these potential options should be examined in an option analysis. Such inclusion would increase confidence in determining the appropriateness of the ultimatelyselected option. Therefore, without examination of these realistic scenarios, a judgement on the appropriateness of the selected option cannot be made. The continued absence in the responses of an evaluation of these options means that this issue must also remain open.
* There remains a difference of opinion whether a treatment plant should be designed for the monthly maximum demand or annual average. This difference in opinion is probably the basis for the differences in estimated capacity (JASPERS and Beneficiary) for the new water line. However, it would not appear applicable to differences in estimated capacity of the proposed rehabilitated existing line under the five different options, for which no additional explanations are provided in the response. Concerning the new line, it can be noted that discharge compliance standards in the Urban Wastewater Directive for nitrogen and phosphorus are determined on an annual average and that designing to a maximum is less cost effective since this additional capacity would remain unutilised for the majority of periods of operation.
* Concerning possible discrepancies in the capital and operating costs used in the option analysis:
  + the responses do not provide explanations for the underlying assumptions used to determine the cost of the new line in the various options.
  + the possible discrepancies for the existing line appear to (partially) relate to VAT assumptions, with the quoted cost in the Feasibility Study stated as excluding VAT, the same cost in the Application Form is ambiguous whether VAT is included or excluded and the Beneficiary’s response where VAT is stated as included in the cost.
  + the provided explanation that the differences in operating costs (between option and financial analysis) are related to the inclusion of other items (labour, materials and repairs) is not relevant since both costs quoted in the JASPERS’ Draft Completion Note are only for chemical and electricity costs.

A review of the actual costs used in the respective analysis together with a better and more careful presentation of underlying assumptions and breakdown of costs (throughout the documentation) can easily resolve this issue. Until these differences are resolved, this issue should also remain open.

1. **Technical Aspects**

Any agreement on the appropriateness of the technical aspects relies on the acceptance on the general principle that an optimum solution from the option analysis has been taken forward. As highlighted above, this has not been adequately proven. Against this non-committal background, the arguments presented in the Beneficiary’s responses are not seen as sufficient to overcome JASPERS’ concerns on the technical solution irrespective of the appropriateness of the selected alternative:

* The proposed project retains the “as tendered new water line plant” from the year 2012. The Project Beneficiary sees this decision as acceptable since (i) the purpose of option analysis is only seen as to broadly define a suitable technical solution and (ii) owing to the non-possibility of the changing the awarded tendered design. While the general purpose of the option analysis can be agreed, the final solution should nevertheless be cost effective. In this case, the size of works (tanks) is about 20% larger than in the preferred option and the plant’s capacity is around 25% higher (1.2 million PE compared to the Beneficiary’s adjusted optimum solution of 0.96 million PE). In reality, the proposed solution is closer to Option 3 than the stated preferred Option 2. The Beneficiary has not identified Option 3 as a cost effective solution (Options 1 and 5 are also claimed to be cost effective). Notwithstanding this, incurring additional costs (capital and operating) by retaining a “pre-determined” engineering solution, despite acknowledged changes in the design inflow parameters, cannot be seen as in the best interests of the consumer or financier. As such, the arguments put forward in the response, therefore, cannot be seen as either rationale or acceptable.

1. **Project Costs**

It is acknowledged that verification of the appropriateness of the capital costs for the proposed works is fraught and compounded by the specifics concerning the location of the proposed plant and the degree of environmental protection works. The JASPERS’ conclusion of “potential over-pricing” was founded against equivalent international costs, taking into account the proposed scope of works and was made against insufficient information on project costs provided in the Application Documents. This insufficiency prevails despite the existence (but non-presented) of a tendered price. The Beneficiary’s response reiterates the known project specific factors and provides a methodology of how works are costed within a tender. The responses do not provide any additional information to justify the magnitude of the cost assumptions. Since the main deficiency identified in the JASPERS’ Draft Completion Note was a lack of information, the comment must remain until the additional and necessary information is provided. The additional information should be relatively easy to provide, only after which can a more substantiated opinion on “possible over-pricing” be given.

1. **EIA Procedures**

The main JASPERS comment highlighted that the building permit for the new line was not in place. The Beneficiary’s responses confirm this fact and foresee the issuing of the permit by the end of March. The JASPERS’ concern, therefore, remains together with the interrelated ability of the Contractor to realise the specified amount of works within the available financial envelope for OP 2007 – 2013 (€ 43 million).

1. **Economic Evaluation**

The responses do not address JASPERS’ concerns on the exclusion of replacements costs and residual values from the analysis (a picture of the evaluation is provided below from the FEA model to demonstrate that these are not included). The capital costs in the below extract from the FEA model sum to CZK 7.198 million and not the CZK 7.37 million that is again retained in the responses to comments. Since the JASPERS’ comments have not been addressed, the initial concerns must remain.

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| Picture3 |

1. **Financial Analysis**

The responses reiterate the need to use the FEA model and hence do not address the actual JASPERS’ comments made that relate to the outcome of the FEA model that shows a project to have a weak level of financial sustainability. Since the comments do not question the JASPERS’ conclusions of weak financial sustainability and applied tariff policy, it is taken that the Project Beneficiary is in agreement with this conclusion albeit that no resolution to these issues is proposed in the responses. The explanation for the apparent discrepancy in the investment costs is accepted. However, it does indicate that Table H.1 of the Application Form has been incorrectly completed. Since the main JASPERS’ concerns have not been addressed in the responses, the overall JASPERS’ opinion on the conclusions of the financial analysis remains. It can be noted that adjustment to the tariff policy (concerning recovery of depreciation in the tariff in periods where negative incremental operating costs are shown to arise) and a better explanation of the high maintenance costs (€ 6.5 million per year) for the existing treatment plant would probably have resolved this general issue.

1. **Project Financing**

The significant outstanding issue concerned the commitment of the City of Prague to provide the necessary co-financing support that was estimated in the Draft Completion Note to be around € 260 million. The responses again reference the same Commitment letter from the City of Prague that does not contain any statement showing the total financial commitment and only references budget allocations to the year 2015. Since these are insufficient in specifying the amount and timing of disbursements, the concern on the level of evidence of commitment, therefore, remains. In addition the capacity to provide the commitment should also be demonstrated. This issue could have been overcome by reissuing the commitment document referencing the currently estimated required contributions together with a further analysis of the financial capacity of the City to realise this provided commitment.

1. **Procurement and Timetable**

Of the three significant outstanding issues raised in the Draft JASPERS Completion Note:

* The main concern raised relates to the ability to complete the necessary works within the eligibility period for the OP 2007 – 2013, since the necessary development consents are not yet shown to have been obtained. Furthermore, the proposed works would have to be shown as being consistent with the applicable “phasing” requirements for the OP 2007 – 2013, with this not addressed in the original Application Documents or the received responses. Therefore, this issue remains open.
* No reply is provided to the expressed concerns on the validity of the work contract for Stage 001 : new water line. This outstanding issue, therefore, must remain open.
* A slightly lower contract value (CZK 324 million compared to CZK 360 million) for the construction supervision contract is provided in the responses. Although this value is slightly lower, the opinion that the cost is high given the (undisputed) remaining period and scope of works for the contract remains. The responses do not provide any supporting evidence to justify the value of the contract and therefore the outstanding issue must remain. Since the contract has been awarded, information on the cost breakdown of the construction supervision contract could have been made available to enable a more informed opinion on its appropriateness to be made.

1. **Institutional / Operational**

The main JASPERS’ concern relates to the sufficiency of details in the memorandum of 27th November 2014 concerning the commitment to change to the operational responsibility. This memorandum only states a general commitment and importantly does not provide information on (i) actions required, (ii) timetable and (iii) responsibility allocation for making the changes, (iv) staffing and operational implications as well as (v) specifying the financial implications of the changed arrangements. The responses to JASPERS’ comments again only make reference to the original memorandum and provide no further information or indications that any progress has been subsequently made. It is considered that until each party fully understands the implications of changed operations, a commitment cannot be properly made. Furthermore, the appropriateness and implications of the proposed changes would need to be assessed before this raised issue could be resolved. The initial JASPERS’ concern, therefore, also remains.