Tidal Grevelingen Project

Market Consultation on a controlled opening with a tidal power plant

Explanation of 2018 market consultation procedure

Date

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Status

Final report

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Contents

1 Reason and objective

1.1 Introduction

This document was produced by the Tidal Grevelingen Project for the Tidal Grevelingen market consultation. The document describes the 2018 market consultation procedure.

The Tidal Grevelingen Project is investigating the feasibility and affordability of the reintroduction of the tide at Grevelingen, possibly in combination with a tidal power plant. As part of an MIRT 2 (Long-Term Infrastructure, Spatial Planning and Transport Programme) decision, recommendations will be issued to public partners in the partnership at the end of 2018, regarding which alternative(s) in the project scope are to be incorporated in the plan development phase. Market interest in a tidal power plant alternative will be taken into consideration.

The objective of this market consultation is to determine the market interest.

A special market consultation day is to take place on **Thursday, 8 November 2018** and was announced on TenderNed on Monday, 1 October 2018.

This document outlines the objective and themes of the market consultation and contains a number of questions from the market. More detailed information relevant for the market consultation can be found:

- on TenderNed
- in the 'Content Description' document of the tidal power plant alternative'
- on the www.gcbd.nl website, which contains information from a previous investigation phase

1.2 Reason

In the concept Grevelingen and Volkerak-Zoommeer Government Development Plan, in 2014 the Cabinet selected the improvement of water quality in Grevelingen as development perspective. The Ministers of IenW and LNV announced on 7 March 2018 that they would make €75 million available – in addition to the previously promised funds – for the construction of an controlled opening. This means that the financing is completed and a restart can be made with the Tidal Grevelingen project. The goal is to realise a resilient and robust ecosystem by reintroducing the tide.

For a reintroduction of restricted tides a controlled opening in the Brouwersdam is required reconnecting Grevelingenmeer with the North Sea. The starting point is a tidal range of no more than 50 cm for an average water level of 0.20 m below NAP (current average level Amsterdam Ordnance Datum). The Ministers' decision has assured funding for the public objectives as formulated in the concept Government Development Plan.

The region wishes to combine the controlled opening with a tidal power plant. As well as generating sustainable energy, this will offer opportunities for innovation and export. As condition for the energy component, the Government has stipulated budget-neutral financing and coverage of operating costs. The project is using the market consultation to investigate market interest in participating in the energy component on a risk-bearing basis in potential win-win situations.

A Governance Agreement is currently being produced that, among other things, will formally record these aspects. In the development plan phase, the main aim is for an optimum balance between marine and wetland habitats. A secondary aim is the win-win situation of linking energy with fish-friendly turbines in a controlled opening.

Preparations are being made to take an MIRT 2 decision in 2018. A choice needs to be made regarding which alternative(s) in the project scope are to be included in the plan development. Whether the tidal power plant alternative is included in the project scope depends partly on market interest.
The Tidal Power Plant Steering Group has issued the assignment to assess market interest and to make all public information regarding this alternative available to the market. This assignment will be concluded at the end of 2018 and will be incorporated in the MIRT 2 decision.

1.3 Market consultation objective

The Brouwersdam Tidal Power Plant Project Agency organised a market consultation in 2013 as part of an early-stage dialogue with the market. From November 2013 to December 2014, market parties were able to offer recommendations for tendering and concluding contracts for the scope of the Tidal Grevelingen Project. The information from this market dialogue has been used to formulate a business case. The report from the market dialogue and the market consultation was published on TenderNed .

The current market consultation has multiple objectives, namely:

- To share the results of the first market consultation widely with the market to ensure a level playing field.

- To reflect on the selected main direction of the market approach and to examine this in more depth, together with the market, as stated in the strategic purchasing plan.
- The assessment of market interest for a Grevelingen tidal power plant includes the following aspects:
    - Finances: feasibility of the business case
    - Market approach: method of involving the market in the plan development phase and possible follow-up
    - Technology and design: achievable design that contributes to the objectives of the concept Government Development Plan.

A project scope decision about the different alternatives will be formulated for the governmental MIRT 2 using the information obtained from the market consultation.
Three alternative types will be considered in this assessment:

- a controlled opening without tidal power plant
- a controlled opening in which a tidal power plant is integrated and
- a controlled opening in which a tidal power plant can be integrated at a later stage

1.4 Outline of the market consultation approach

The market consultation comprises the following components:

1. A joint session with:
    a. a plenary section, in which feedback from the previously held market consultation and the project is presented and in which the currently known issues are explained.
    b. an interactive section, in which a discussion takes place per theme on the questions included in chapter 4 of the market consultation document.
2. A written round, in which participants are asked to answer the previously clarified questions in writing.
3. Individual interviews - where needed - for which market parties will be approached to provide further clarification on their answers.
4. To conclude the market consultation, a report of the market consultation will be published on TenderNed.

The project organisation emphasises here that this market consultation document does not form part of any future tender and that no rights may be derived from this.
Suggestions and insights obtained during the market consultation will be used (where relevant) to prepare the tender procedure and the tender documentation. The project organisation retains the right to not use or not entirely use these suggestions and insights.

1.5 Market consultation target group

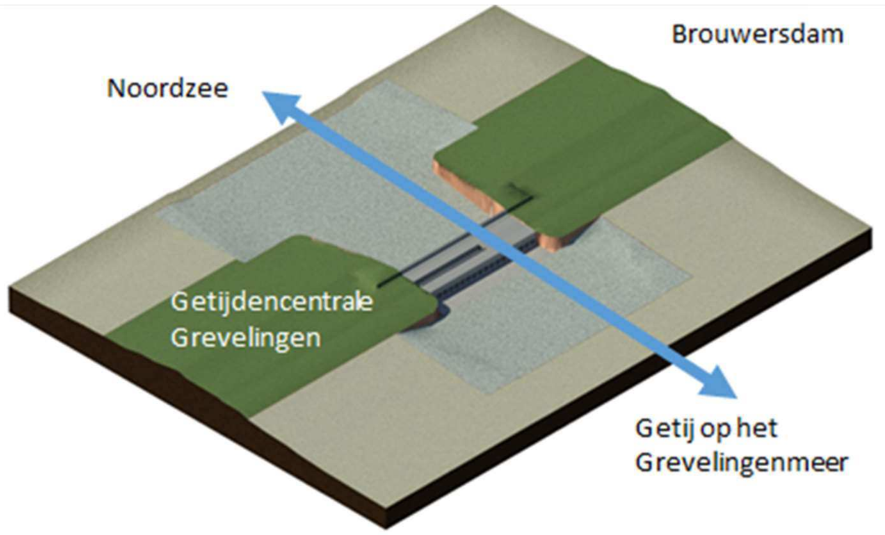
The market consultation’s target group is all private parties, individually or in a consortium, who have a serious interest in developing and realising a controlled opening in the Brouwersdam including a tidal power plant, and to operate the tidal power plant in a risk-bearing capacity.

2 Tidal Grevelingen Project

The Tidal Grevelingen Project will prepare a decision about the project scope. This chapter describes the steps that have been taken until now, the anticipated market involvement and the expected timeframe.

2.1 Preparation for project scope decision

In Grevelingen, low-oxygen water layers are expanding further and the Volkerak-Zoommeer is suffering from plagues of blue algae. In the concept Grevelingen and Volkerak-Zoommeer Government Development Plan, the Government indicated that there is no likelihood of autonomous improvement in water quality in Grevelingen. The reintroduction of tides via a controlled opening in the Brouwersdam offers the most sustainable solution for this issue.



Realising a controlled opening in the Brouwersdam offers opportunities for generating tidal energy through the construction of a tidal power plant in the opening.

The Tidal Power Plant Project Agency investigated the feasibility of a tidal power plant in combination with a controlled opening with various market parties in the 2014 market consultation. The results were recorded in the report of the 2015 pre-competitive phase.

A public reference alternative and business case were developed in 2015 in cooperation with the European Interreg NWE project ‘Pro-Tide’. This business case has been published. The business case offers market parties and investors/financiers an idea of feasibility and forms a reference on which to base their tenders.

The project is currently working towards the MIRT 2 decision, in which the planning phase project scope is determined. Whether the tidal power plant alternative is included in the project scope depends partly on market interest, especially as the market is expected to self-finance the additional investment, the operation and maintenance of the tidal power plant. The market had already indicated its interest in the 2015 market consultation.

2.2 Market approach during the plan development

In the market approach for the Tidal Grevelingen Project, the public organisations consider the following to be important:

- Early use of private company expertise. In this way, optimum use can be made of their knowledge and creativity for smart and innovative solutions.
- Interweaving private expertise and public procedures. The spatial planning procedures and the design process are interwoven into an integrated design that is financially feasible and technically achievable.
- Obtaining rapid assurance about costs so that an early positive business case can be developed for the tidal energy component.
- Designing an efficient and effective process, resulting in a shorter lead time for the entire project and limited transaction costs.
- A phased approach to obtain a stable project scope and an indication of the financial feasibility of the total project scope (controlled opening with integrated tidal power plant).

If the above results in selecting this integrated alternative, the public organisations aim to design the market approach as follows:

- Selection of one private contract partner for the plan development up to the realisation and operation of the integrated project.
  This does justice to the complexity of the project and the required comprehensiveness (technical and financial) of the solution.
- Conclusion of an integrated contract, divided into two phases:
  - The first phase concerns the plan development phase and preparations for realisation.
  - The second phase concerns the realisation and operation following the plan development phase.

In the first phase the selected partner will work with a mandated contractor in an alliance on behalf of the public partners. A reason to choose a public-private form of cooperation is that the government agencies would like to ensure the generation of sustainable energy as well as the introduction of water quality measures. The innovative character of this combination of functions requires early market involvement in order to achieve an integrated and financially feasible design.

A contract type will be selected at a later stage for the second phase, the final realisation of the integrated project.

3 The market consultation

3.1 Procedure

3.1.1 Planning
The market consultation forms part of the preparations for a project scope choice in the context of an MIRT 2 decision at the end of 2018. The market orientation adheres to the timeframe given below.

Activiteit	*Planning*
Publish 'market consultation procedure' document on TenderNed	1 October 2018
Publish 'content description' document of the tidal power plant alternative	12 October 2018
Final registration date for market consultation	19 October 2018
Market consultation day	8 November 2018
Final date for submission of completed questionnaire	22 November 2018
Dates for any verbal clarification interviews	week 48 of 2018
Conclusion and publication of results on TenderNed	week 51 of 2018

3.1.2 Registration
Companies and consortia interested in participating in the contract to realise the project are welcome to participate in the market consultation. Registration, including name, organisation and position, should take place via TenderNed prior to the date stated in paragraph 3.1.1 'Final registration date for market consultation'.

To enable discussion with the widest audience possible, we will limit participation to two participants per organisation. Registration on TenderNed means automatic participation in the plenary session; no selection will take place.

3.1.3 Plenary session and sub-sessions
After the project organisation has received the registrations, a joint meeting will be held on 8 November 2018 with a plenary session and various themed sub-sessions.

The goal of the session is to provide participants with insight into the issues surrounding the Tidal Grevelingen Project. The project organisation will give a presentation and clarification on the issues and there will be ample opportunity to pose questions during the interactive sub-sessions. This will ensure that participants are able to obtain all the input they need to provide detailed answers to all the questions in the questionnaire. Please refer to chapter 3.4 for details about the market consultation.

The programme design is as follows:

Market Consultation Day programme 8 november 2018
Arrival
Morning programme
▪ Welcome by the Chair
▪ Opening by Han Weber, Provincial Executive member for Energy, South Holland
▪ Introduction (speaker will be announced at later date)
▪ Plenary clarifications:
• Grevelingen ecosystem
• Market approach, market vision, alliances and contract form
• Tidal power plant and business case
• Innovation and sustainable energy; outline of financial section
Lunch
Afternoon programme
1 Sub-session: Financial
2 Sub-session: Market approach
3 Sub-session: Tidal power plant technology and design
Pauze
1 Sub-session: Financial
2 Sub-session: Market approach
3 Sub-session: Tidal power plant technology and design
▪ Joint conclusion and announcement of questionnaire
Drinks

3.1.4 Submission of questionnaire

Following the joint session, all participants will be able to present their opinion by completing a questionnaire, which is included in chapter 4 of the market consultation document. Parties can submit the answers to the questionnaire via TenderNed prior to the date stated in paragraph 3.1.1 'Final date for submission of completed questionnaire'.

3.1.5 Verbal clarification of the written answers

If the project organisation requires more detail about the answers given, it will invite for an interview those participants who have provided complete and substantiated answers in the questionnaire and have submitted this in time via TenderNed. The objective of these interviews is to obtain more insight into the answers given in order to be better able to incorporate the input of participants in the project's market approach. The project organisation will only conduct interviews if it is of the opinion that this will add value.

The project organisation is not obliged to conduct interviews and participants can therefore not claim entitlement to an interview. Any interviews will take place on the dates stated in paragraph 3.1.1.

It must be emphasised that parties that are invited will not have an advantage compared with other parties. The project organisation will not provide any additional information during these interviews than was made available at the joint session. All results of the market consultation will also be published on TenderNed.

3.1.6 Conclusion of market consultation and feedback of the results

The project organisation will conclude the market consultation with the publication of a report from the market consultation on TenderNed. The market consultation's most important conclusions will be incorporated in the report. In connection with this report, the project organisation would like to emphasise the following:

1. The report will be published. By participating in the market consultation, market parties have given permission to the project organisation to use their answers and other information and/or data provided by them in this report.
2. The answers and other information and data will be anonymised for inclusion in the report. The report will contain an appendix indicating the participating market parties.

3.2 Rules

The Tidal Grevelingen Project is currently in the MIRT orientation phase. Agreements made in the 2015 market consultation mean that confidentiality of information must be taken into account.

A report will be produced of the results of the 2018 market consultation for publication via TenderNed; this will comply with the confidentiality agreements from 2015. In this way, all parties will have access to the same information. This will ensure a level playing field between all parties.

Insights obtained in the 2018 market consultation can be used in the preparation of a future market approach and the documentation that must be produced in that context. Rijkswaterstaat retains the right to not use or not entirely use the obtained suggestions and insights.

Although the information in this market consultation document originates from reliable sources and every care has been taken in the production of this, Rijkswaterstaat is unable to accept any liability towards the user for any errors, inaccuracies and/or omissions, irrespective of their cause, nor for any damage resulting as a consequence of this. Use of the information in the market consultation document and user decisions based on this are for the user's own account and risk.

Rijkswaterstaat would like to emphasise that this market consultation document does not form part of any future tender that may be established and no rights may be derived from this. Rijkswaterstaat will decide which information and insights obtained from this market consultation are to be used in the preparation of any future tender.

3.3 Other provisions regarding the market consultation

The 2018 market consultation does not form part of a future tender. So that participants in the market consultation are not in a favourable position, the project organisation will ensure that information that is shared during the market consultation is made available to all parties during the future tender procedure(s) based on the report of the market consultation.

In a future tender, no distinction will be made between private parties who have or have not participated in the market consultation.
Advancing insights or changing circumstances can result in information from this market consultation deviating from information provided later (in the context of a

tender procedure or another recruitment process). That is why no rights may be derived from the information provided in the context of this market consultation.

3.4 No fee

As the 2018 market consultation is also of added value to the participants themselves and the requested effort is minimal, no fee will be awarded.

3.5 Date and location

The Market Consultation Day will take place in week 45, Thursday, 8 November 2018 from 9.30 am to 5.00 pm in NDC Den Hommel. The location is Kennedylaan 9, 3533 KH Utrecht, the Netherlands.

3.6 Lunch arrangements

The project organisation will ensure that lunch is arranged for the market consultation participants. When confirming participation, the participants will be asked to indicate whether they wish to make use of the lunch arrangement.

4 Market consultation themes and questions

4.1 Market consultation themes

This market consultation document provides an overview of the questions that public partners have about the Tidal Grevelingen Project in general and about three specific themes:

1. General
2. Financial
3. Market approach
4. Technology and design of controlled opening with integrated tidal power plant

These themes are described extensively in the published context description document. For each theme in this market consultation document various questions have been developed to offer guidance in formulating recommendations and focus points on these themes.
The questions are mainly intended to assess whether there is sufficient interest in this project.

You will also be invited to mention recommendations and focus points on the themes and questions that you think should have been addressed but have not been addressed so far.

The answers received will be incorporated anonymously in the market consultation report.

Your answers will need to be submitted via TenderNed.

Questions about the market consultation and the future tender procedure to achieve a controlled opening in the Brouwersdam can be posed via TenderNed.

4.2 Questions

This section covers the general main question and the project organisation's questions per sub-theme. The project organisation assumes that all questions will be answered in full, unless stated otherwise (optional questions). It is also assumed that the participating market parties will have taken note of this Market Consultation Document and the Context Document before answering these questions.

4.2.1 General

The main question for this market consultation is: 'Based on the available information, to what extent are market parties interested in participating in the energy component in a risk-bearing capacity in a potential win-win situation.'

Other aspects, such as competencies, process and culture can play an important role in the success of the proposed tender. These aspects (and others that you consider important) are addressed in this category.

A1. How can it be prevented that an open and interactive plan development will result in long lead times? This project forms part of the 'impulse programme' in which lead time is a critical aspect.
A2. Regarding the outlined timeframe, do you see any possibilities for acceleration?
A3. Which approach and input of the involved public organisations do you consider necessary in order develop an achievable plan and clear lead times?
A4. Are you prepared or do you see opportunities for operating the tidal power plant in a risk-bearing capacity?
A5. Does the formulated project scope together with the task-setting budget form a sound basis for you to tender?

4.2.2 Theme 1: Financial
The financial foundation for the follow-up is formed by an energy business case and an estimate for the controlled opening and mitigating measures, based on the task-setting budget.
B1. Do you consider this to be a realistic foundation?
B2. Can you use this to produce a financial model that will form an important part in the proposed tender?
B3. Are you prepared to finance or partly finance your participation in the plan development phase?
B4. Are you prepared to commit in advance to the project scope and the associated task-setting budget? If not, what is needed for you to be able to do this?
B5. Are you prepared to commit to operating the tidal power plant in a risk-bearing capacity, if an achievable business case can be developed in the planning phase?
B6. What is your opinion of the influence of recent price increases in construction?
B7. What financial incentives do you think are needed to enable the market approach to succeed?
B8. What is your opinion of the private party's responsibility for formulating the energy business case, the request of subsidies and everything that is needed to achieve private operation of the tidal power plant?

Optional theme questions, Financial:
Giving an answer to the following specific content questions is optional:
B9. Do you endorse the starting points employed in this market consultation and the methodology of the business case?
B10. What other or additional starting points do you see? For example:
   a. Optimum operating period
   b. SDE+ and other subsidies
   c. Connection costs
   d. Electricity price developments
   e. Duration of construction period
   f. Discount rate (WACC)
   g. Settlement of corporation tax, VAT
B11. Which risks do you think should be borne by the client for an achievable business case? For example in the area of:
   a. Conditions regarding water level management and achieved water quality and the possible impact of these on energy production
   b. Network capacity
   c. Sea level rises
   d. Electricity price developments
   e. Permits

B12. What is your opinion on the size of the investment, approximately €60 million, in relation to the annual energy generation of approximately 60,000 MWh? How do you view this in relation to investments in alternative sustainable energy sources?

B13. How would you finance the €60 million investment?

4.2.3 Theme 2: Market approach

The proposed market approach (see also the Context Document) assumes early market participation in the plan development (design and Project EIA) and realisation/operation after a 'go decision' at the end of the plan development phase.

C1. Does the proposed market approach appeal to you? Which suggestions or additions do you have?

C2. What is your opinion of the outlined timeframe?

C3. What are your findings and/or recommendations regarding the design of the process. What risks and/or opportunities do you see in this?

C4. What do you consider to be the most important issues for the plan development?

C5. How do you view the use of substantial capacity in the plan development phase, in which realisation/operation is not yet certain?

C6. What is your opinion of a (partial) pre-financing of the plan development?

C7. How do you view the deployment of public organisations in an alliance? Which responsibilities are appropriate in this?

C8. Which governance structure is a good match for this?

C9. What risks do you envisage regarding an alliance-type partnership in an alliance form during the plan development phase?

C10. Which project scope and market organisation form do you envisage for the phase after the plan development, so for realising a controlled opening in which a tidal power plant is incorporated and the operation of this? What is your motivation for this?

C11. Which market organisation form do you prefer in this?

C12. Which conditions are needed for this and who should be responsible for this?

4.2.4 Theme 3: Technology and design

The project has various uncertainties, which must be addressed by the government and market in the joint plan development. This concerns uncertainties regarding:

- an achievable energy operation and the conditions for this
- the level of tide that is required/sufficient to ensure that Grevelingen remains healthy in the long term
- the approach of stakeholders and environment, for example regarding Natura2000 values or regarding the migration of fish and marine animals
- the level and pace of sea level rises, which has a considerable influence on the functional service life of the controlled opening/power plant.

In the joint plan development a 'design freeze' will be implemented after a plan has been developed that is achievable financially, legally and socially. A realistic basis and sufficient options for optimisation will then be required.

D1. Do you think that the formulated starting points are formulated in a sufficiently functional way and also offer sufficient space for optimisation?

D2. Is the tension between project scope/starting points and a task-setting budget healthy and realistic? From a technical perspective, are there opportunities for optimisation?

D3. Is the development of the reference version thorough and realistic?

D4. Do you have confidence in the underlying models and methodologies?

D5. How should the knowledge and interests of the environment and of other stakeholders be translated into a plan development and ultimately into an achievable integrated plan? Do you consider the proposed approach for this to be a sound basis?

Optional theme questions, Technical

Giving an answer to the following specific content questions regarding the energy section, design, costs, risks and opportunities is optional:

D6. Do you consider the 60 GWh power generation of the tidal power plant to be realistic, taking into account the requirements regarding water level management? On what basis do you think the returns will be higher or lower?

D7. Are you of the opinion that turbines can be used effectively for fine-tuning of the water level on Grevelingenmeer?

D8. Can water safety be ensured with single locks combined with turbines?

D9. How do you think this project can proceed cost-efficiently together with the client?

D10. How do you think you will be able to minimise the risk and maximise the opportunities together with the client?

Colophon

The Tidal Grevelingen Project
is a partnership between:

provincie Zuid Holland

Provincie Zeeland

Ministerie van Landbouw, Natuur en Voedselkwaliteit

Rijkswaterstaat
Ministerie van Infrastructuur en Waterstaat

Ministerie van Economische Zaken en Klimaat

gemeente Goeree-Overflakkee

Gemeente Schouwen-Duiveland

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