



Rijkswaterstaat
Ministerie van Infrastructuur en Milieu

RWS BUSINESS INFORMATION

Market consultation

in preparation of the tender for the "A50 sound barriers and Solar Highways" project

Case number 31117207



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Information	Toine van Kaam
Telephone number	+31 6 53334486
Contact	solarhighways@rws.nl
Contribution by	Léon Hombergen, Stephan van der Roest, Ronald van Pelt
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1	Introduction—4
1.1	Background—4
1.2	Objective of the market consultation—5
1.3	General approach of the market consultation—5
1.4	Target group of the market consultation—5
2	Particulars and principles of the tender—7
2.1	Scope of the project—7
2.2	Tendering method—8
2.3	Project objectives—8
2.4	Milestones—8
3	Market consultation—9
3.1	Procedure—9
3.1.1	Time schedule—9
3.1.2	Submitting the questionnaire—9
3.1.3	Oral assessment and explanation—9
3.1.4	Completion of market consultation and feedback of results—9
3.1.5	Transparency and reliability—10
3.2	Other provisions concerning the market consultation—10
4	Questionnaire—11

1 Introduction

1.1 Background

This market consultation serves as preparation for the proposed tender for the "A50 Noise Barriers and Solar Highways" project. Rijkswaterstaat Programmes, Projects and Maintenance (RWS) attaches great importance to the opinion of market players and would like to actively involve them at an early stage before the proposed tendering procedure begins.

RWS is planning to install and/or upgrade noise barriers on the A50 between Sint Oedenrode and the Paalgraven motorway junction. One particular aspect of the project is the use of double-sided solar cells as an integral part of the noise barrier over a length of approximately 450 metres near the municipality of Uden. Details of the scope are provided in the section below.

RWS is basing its preparation on a Design & Construct (D&C) contract with functional requirements, because this type of contract leaves market players leeway for optimisation. RWS is basing its market approach on a tender with pre-selection and clear MEAT criteria¹.

In view of the innovative nature of the scope, the project team is organising a market consultation in order to incorporate the ideas advanced by market players into the preparation of the tender.

Market parties will be provided with information and consulted during this market consultation. This market consultation is being announced on and will be formally conducted via [TenderNed](#).

RWS invites market parties to take part in this market consultation.

The market consultation does not form part of the tendering procedure. Participation in this market consultation is without obligation and does not confer special rights on the participants. On the other hand, participation can be a good opportunity to familiarise yourself with the project and provide input for the eventual request for proposal. Participation in this market consultation is not a requirement for participating in the eventual tendering procedure.

The market consultation will begin with a written round (answering written questions), which is open to each party in the target group. An oral round will also be held, which consists of an information-gathering visit to the project site and round-table discussions.

The oral round will only be open to parties who actively participate in the written round.

The authors of this document had the deliberate intention of not making the written questions complicated. In this way, they hope to keep the costs incurred in answering the questions within manageable limits.

¹ Most Economically Advantageous Tender

The A50 Noise Barriers and Solar Highways project is a pilot. Learning experiences will be used to ascertain whether the technical concept of Solar Highways can also be used elsewhere in the Netherlands.

1.2 Objective of the market consultation

RWS has published this consultation document on TenderNed with the objective of reaching as many market players as possible, arousing their interest and encouraging them to share their ideas.

By undertaking this market consultation, RWS intends to gain an understanding of:

- the constraints within which the project can be successfully contracted and implemented;
- the experience of market players with the type scope of the project;
- the enthusiasm of interested, qualified market players for carrying out the project;
- the feasibility of the current time schedule;
- to assess the feasibility of the functional requirements and gain a greater understanding of meaningful MEAT criteria.

RWS emphasises that this market consultation is not part of the tendering procedure and no rights can be derived from it. RWS reserves the right not to use ideas in full or at all.

Ideas obtained from the market consultation will be used by RWS (where relevant) in the preparation of the tendering procedure and the tendering documents. In this way, a more suitable contract will be awarded to the market.

RWS will try to work in as open and transparent a way as possible, mainly by publishing a report on the market consultation on TenderNed.

1.3 General approach of the market consultation

The market consultation principally consists of a round of written questions and a number of round-table discussions with market players who have registered and wish to make a contribution.

Interested market players will be requested to complete and submit the questionnaire in Section 4. This information will be completely public.

Following these sessions, the parties will be able to request a short bilateral meeting at which more confidential aspects can be assessed. No separate reports of these discussions will be published but the results will be published in an anonymised summary on TenderNed as part of the report.

Section 3 describes in detail the procedure and approach adopted in the market consultation.

1.4 Target group of the market consultation

The market consultation for the A 50 Noise Barriers and Solar Highways project will focus on companies in the market who are interested in acting as possible

Contractors for this project or who are interested in acting as an independent subcontractor for a main contractor or who wish to be involved in such a project as a supplier of solar panels.

Target group:

- a) Market players who have experience in the design, installation and maintenance of noise barriers along roads;
- b) Market players who have experience in the design, construction and maintenance of photovoltaic energy systems (PV systems);
- c) Market players who supply bifacial PV systems;
- d) Market players who have experience in the operation of PV systems.

2 Particulars and principles of the tender

This section describes in detail a number of subjects considered by the project team to be relevant particulars and principles of the tender. This background information is needed so that the questions can be answered properly.

2.1 Scope of the project

Solar Highways is an innovative and sustainable initiative of RWS and its partners ECN (Energy Research Centre of the Netherlands) and SEAC (Solar Energy Application Centre). It is a demonstration project for a noise barrier that both stops traffic noise and generates energy. The noise barrier generates energy on two sides with solar panels which have been integrated into the noise barrier and will be built on the east side of the A50 in Uden.

Most solar power systems are directed to face south in order to capture the greatest amount of sunlight. However, the A50 in Uden runs from south to north, which means that the sound barrier is facing east and west. At first glance, this does not seem to be a logical choice but the solar cells we will be using are "bifacial" solar cells. These solar cells are capable of converting light to energy on two sides, so that the sunlight in the morning and evening hours is converted to electricity. In this way, just as much, if not more, energy is generated than by a solar noise barrier that faces south.

This is not the first project in the Netherlands in which solar panels and noise barriers are combined but in earlier projects standard solar panels were fitted to a sound barrier. For Solar Highways, we use integrated solar panels that form part of the structure. In this way, solar panels have a dual function: they stop the noise *and* they generate sustainable electricity.

This project forms part of the A50 Sint Oedenrode – Paalgraven project. Over the next few years, RWS will be replacing or heightening the noise barriers in six locations along this route. In principle, the construction of the Solar Highway will be included in a single contract with other noise barriers.

SEAC will be measuring and analysing the energy yield of the solar noise barrier until 18 months after completion. By linking these measurements to measurements of the solar radiation, it will be able to analyse how the system is performing. This information is important for making an accurate estimate of energy yields and financial income for future solar noise barrier projects.

In early 2017, an invitation to tender will be issued in respect of which construction companies or consortiums of construction companies will be able to bid.

2.2 Tendering method

RWS wishes to award the contract as a conventional D&C contract under the UAV-GC² with MEAT as an award criterion, but is considering adopting a Best Value based approach when assessing the tender bids.

This means that an interview – with bidders who state that they are the best party – can be included in the MEAT assessment procedure.

2.3 Project objectives

In accordance with the Best Value Procurement method, project objectives have been formulated for the "A50 Noise Barriers and Solar Highways" project as a whole.

This involves the following priority project objectives:

1. To provide the correct noise reduction function at the specified locations in a timely and continuous manner;
2. To contribute as fully as possible to the wider application of solar energy as an energy source for our future by sharing learning experiences and knowledge;
3. To achieve optimum energy use by the Solar Highway, taking account of the maintenance aspects of a motorway location.

A major constraint is having to ensure the uninterrupted circulation of road traffic.

2.4 Milestones

Below are a number of important milestones for the contract, in accordance with the current time schedule. Interested parties cannot derive any rights from the time schedule below. RWS reserves the right to alter the time schedule. The milestones below are therefore of an indicative nature and the greatest possible care will be taken to adhere to the time schedule.

Milestone	Date
Start of the tendering procedure	Q1 2017
Award of contract	Q3 2017
Opening	Q4 2018

² Uniform Administrative Conditions for Integrated Contract Types

3 Market consultation

3.1 Procedure

3.1.1 *Time schedule*

RWS will use the following time schedule for the market consultation:

Activity	Date
Publication of market consultation document	01-April-2016
Latest date for submitting completed questionnaire	09-May-2016
Visit to project site and round-table discussions	18-May-2016
Dates for possible oral explanatory meetings	24 - 26-May-2016
Completion and publication of consultation results	14-June-2016

Interested parties cannot derive any rights from the above time schedule. RWS reserves the right to alter the time schedule. The above time schedule is therefore of an indicative nature and the greatest possible care will be taken to adhere to the time schedule.

3.1.2 *Submitting the questionnaire*

Every interested market player who fits the description in Section 1.4 and who believes that he can contribute to the market consultation is requested to submit his answers to the questionnaire in Section 4 of this market consultation document via e-mail: aanbestedingsteam-gww@rws.nl before the "Latest date for submitting completed questionnaire" referred to in Section 3.1.1.

The project team may ask market players to clarify their answers in writing, but is not obliged to do so.

In addition to the written round, RWS will organise a visit to the project site and, thereafter, round-table discussions in which specific aspects will be discussed in a dialogue on a theme-by-theme basis. The ideas obtained from this dialogue will be included in the report.

3.1.3 *Oral assessment and explanation*

Once the project team has read the written answers to the questions, market players may submit a request to hold an explanatory and individual meeting. Any meetings will take place during the period referred to in Section 3.1.1. Both the participants in and the results of these meetings will be published.

3.1.4 *Completion of market consultation and feedback of results*

The market consultation will be completed on the date referred to in Section 3.1.1.

The project team will round off the market consultation by publishing a report on the market consultation on www.tenderned.nl. The report will include the conclusions of the market consultation that the project team consider the most important. In connection with this report, the project team would expressly refer market players to the following:

1. The report will be published. Market players will grant the project team permission to use their answers, and other information and/or data they have supplied, in this report.

2. The answers and other information and/or data will be included in the report in anonymised form. The report will, however, mention the participating market players;
3. The report will contain the conclusions as stated by the project team. Neither the report nor its contents will be agreed with participating market players in draft form. The report will, however, state that it reflects the opinion of the project team and this is not necessarily shared by the participating market players.

3.1.5 *Transparency and reliability*

The project organisation will use the answers from the participating parties for the output specifications and other tendering documents to be drawn up in any competitive phase.

During any individual meetings after the written and oral rounds, the participants can also supply the project organisation with confidential information. The purpose of this is to protect existing intellectual property rights or a confidential solution that the participant would like to use to validate the (non-confidential) answer given previously to his question.

The participants must explicitly state which items in this section are confidential and why. The project organisation will not publish this information or share it with parties other than the authorities concerned without the participants' permission. It is important for the decision-making process to be able to have open and transparent discussions. For this reason, the project organisation would request you to exercise restraint when categorising information as confidential.

3.2 **Other provisions concerning the market consultation**

The market consultation does not form part of the tendering procedure. To ensure that participants in the market consultation are not put in a privileged position, the information shared by RWS during the market consultation will also form part of the tendering documents.

No distinction will be made in the tendering procedure between parties who have and have not participated in the market consultation.

Information in this market consultation may differ from information which is subsequently provided (as part of a tendering procedure or other procurement process). No rights can be derived from information provided as part of the market consultation. The information is indicative and merely intended to improve the quality of the market consultation. If this information is inconsistent with information which is provided subsequently (as part of a tendering procedure or other procurement process), the latter will prevail.

RWS will not pay a fee to participants in the market consultation.

4 Questionnaire

Participants are not obliged to answer all the questions in the written round. Participants who contribute in this round may be invited to the round-table discussions.

The project organisation requests participants to limit their answers to each of the five categories below to a maximum of three pages of A4. Participants can also answer the questions in each category in essay form, if so desired.

	Questions about your interest in the contract
A1	Based on the limited information in this document, would you consider bidding in this tender? If so, why? If not, why not?
A2	If you are planning to bid as part of a consortium, what type of parties would you consider entering into a consortium with and why these parties?
	Questions about the contents of the contract
B1	Do you see any possibilities for applying innovative solutions in terms of reducing maintenance costs and life cycle costs of the solar panels, based on a satisfactory energy yield? If so, what are the constraints?
B2	Which major cost items within the project would benefit most from a good approach to the tender and/or contract?
B3	What do you see as your role as a contractor with regard to this specific project in terms of procuring bifacial solar panels and what aspects could be facilitated by RWS in any case?
B4	What is the minimum information required with regard to solar energy aspects that would enable you to bid for this work?
B5	RWS does not wish to include the operation of the solar panels in the contract in the first instance. Do you see any possibilities and advantages of including this? In what way?
B6	How can we ensure that the maintenance of the solar panels causes as little disruption as possible to road traffic?
B7	How can we ensure that the maximum possible energy yield is achieved at the minimum possible cost in terms of maintenance?
B8	What constraints do you believe would have to apply to the surrounding area to ensure the optimum construction, maintenance and operation of Solar Highways?
B9	What assurances would RWS have to give you for you to be able to operate

	the Solar Highways?
B10	What service life do you think the RWS could expect if you were to maintain and operate the Solar Highway?
	Questions about the tendering method
C1	In what respects do you believe a Contractor can add value to this project?
C2	What aspects do you believe are most likely to be considered a MEAT aspect?
C3	How can a D&C contract be worded to include an effective incentive for achieving the optimum energy yield during the operational phase?
	Questions about the time schedule (assuming one contract)
D1	RWS is planning to begin the information-gathering period in the tender in Q1 2017. The contract will then be awarded in Q3 2017. Do you think this schedule is feasible? Please give an explanation of the main critical factors?
D2	RWS envisages an implementation period of about 15 months from the award of the contract until the Project is ready for opening. Do you think this implementation period is feasible? If not, why not?
	In conclusion
E1	Are you willing to explain your answers to the questionnaire in detail at an oral discussion at the invitation of RWS?
E2	How would you like to contribute to the publication of the results of this pilot?
E3	If the solar panels remain the property of RWS, what possibilities do you see for placing the operation with third parties, e.g. by means of a partnership. Do you have practical experience?
E4	Do you have any other ideas, suggestions or observations?

Please send the questionnaire to: aanbestedingsteam-gww@rws.nl indicating the case number: "Zaaknummer 31117207".