Planning

Safe and Ethical Disposal of Nitrous Oxide and Entonox Medical Gases Challenge Opportunity

NHS Wales Shared Services Partnership-Procurement Services (hosted by Velindre University NHS Trust)

F01: Prior information notice
Prior information only
Notice identifier: 2022/S 000-036297
Procurement identifier (OCID): ocds-h6vhtk-039390
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Section I: Contracting authority

I.1) Name and addresses

NHS Wales Shared Services Partnership-Procurement Services (hosted by Velindre University NHS Trust)

Procurement Services, Cardiff and Vale University Local Health Board, Woodlands House, 2nd Floor, Maes-Y-Coed Road

Cardiff

CF14 4HH

Contact

Sarah Yellen

Email

sarah.yellen@wales.nhs.uk

Telephone

+44 02921508273

Country

United Kingdom

NUTS code

UK - United Kingdom

Internet address(es)

Main address

http://nwssp.nhs.wales/ourservices/procurement-services/

Buyer's address

https://www.sell2wales.gov.wales/search/Search_AuthProfile.aspx?ID=AA0221

I.3) Communication

Additional information can be obtained from the above-mentioned address

I.4) Type of the contracting authority

Body governed by public law

I.5) Main activity

Health

Section II: Object

II.1) Scope of the procurement

II.1.1) Title

Safe and Ethical Disposal of Nitrous Oxide and Entonox Medical Gases Challenge Opportunity

Reference number

SP17

II.1.2) Main CPV code

- 24111500 - Medical gases

II.1.3) Type of contract

Supplies

II.1.4) Short description

Cardiff and Vale UHB along with other Health Boards across Wales have established a group to explore how nitrous oxide can be delivered via small portable cylinders and eliminate the use of the manifold system.

Portable E sized N2O cylinder with a regulator and Schrader valve connection was trialled with success and this change has been rolled out across the University Hospital Llandough and the nitrous oxide manifold was decommissioned in April.

We are looking for sustainable and cost effective solutions for the safe disposal of nitrous oxide and Entonox medical gases. Specifically around the following two Themes:

Theme 1:

Safe disposal of gas within partly filled nitrous oxide cylinders prior to return to the supplier; and

Theme 2:

A solution to the problem of the high levels of Entonox being released into the atmosphere following consumption on our wards.

Applicants may apply for one or both Themes.

Phase 1: Feasibility – We are looking to fund up to 5 projects up to a value of 50,000 (inclusive of VAT) each for Phase 1.

Note: Only projects successful at phase 1 will be eligible to apply to subsequent phases. Additional phases will be dependent upon funding allocation.

Phase 2: Development - We expect to fund up to 3 of the most successful phase 1 projects up to a value of *150,000 each (inclusive of VAT).

*Dependent upon funding allocation

Please note any adoption and implementation of a solution from this competition would be subject of a separate, possible competitive, procurement exercise. This competition does not cover the purchase of any solution although we may choose to investigate and explore innovative procurement routes as part of this challenge.

The total funding available for the competition can change. The funders have the right to:

adjust the provisional funding allocations between the phases

apply a ‘portfolio’ approach

II.1.5) Estimated total value

Value excluding VAT: £700,000

II.1.6) Information about lots

This contract is divided into lots: Yes

The contracting authority reserves the right to award contracts combining the following lots or groups of lots:

Theme 1:

Safe disposal of gas within partly filled nitrous oxide cylinders prior to return to the supplier; and

Theme 2:

A solution to the problem of the high levels of Entonox being released into the atmosphere

following consumption on our wards.

We are looking to identify, develop and demonstrate innovative solutions that could:

Reduce our emissions of nitrous oxide and Entonox;

Provide a competitively priced and affordable solution to ensure the safe disposal of nitrous oxide and Entonox medical gases in a sustainable way;

Reduce our purchasing of Entonox and nitrous oxide;

Reduce waste in our Entonox supply system; and

Improve air quality in the delivery rooms on labour wards.

Applicants may apply for one or both Themes.

II.2) Description

II.2.1) Title

Theme 1: Safe disposal of gas within partly filled nitrous oxide cylinders prior to return to the supplier

Lot No

1

II.2.2) Additional CPV code(s)

- 44612100 - Gas cylinders

II.2.3) Place of performance

NUTS codes

- UKL - Wales

II.2.4) Description of the procurement

Cardiff and Vale UHB along with other Health Boards across Wales have established a group to explore how nitrous oxide can be delivered via small portable cylinders and eliminate the use of the manifold system.

Portable E sized N2O cylinder with a regulator and Schrader valve connection was trialled with success and this change has been rolled out across the University Hospital Llandough and the nitrous oxide manifold was decommissioned in April.

The smaller cylinders have proven to be more efficient than the manifold and have an efficiency of 74%, compared to the piped supply from the manifold. This shows what huge gains there are to be made from moving over to a portable cylinder supply.

We are left with two problems:

1. There are numerous partly filled large G size cylinders on the manifold which we no longer need. If they are returned, the remaining nitrous oxide will be released to the atmosphere. Current legislation prevents reuse/recycling of this gas. We want to find a way to prevent this nitrous oxide going into the atmosphere.

2. We also consume large amounts of Entonox (50% oxygen, 50% nitrous oxide) which is predominantly used by women for pain relief in labour. When this gas is used it is exhaled into the atmosphere. We would like to find an alternative solution which is suitable for widespread use in maternity units across Wales and the UK.

The Healthcare Without Harm Report showed that 5.6% of UK emissions are from healthcare. The Welsh Government have declared a climate emergency and published NHS Wales Decarbonisation plan stating that the Welsh public sector will be carbon neutral by 2030. This ambitious plan specifically targets anaesthetic gases and includes nitrous oxide which has a global warming potential approximately 298 times that of carbon dioxide

Challenge Details

We are looking for sustainable and cost effective solutions for the safe disposal of nitrous oxide and Entonox medical gases. Specifically around the following two Themes:

Theme 1:

Safe disposal of gas within partly filled nitrous oxide cylinders prior to return to the supplier; and

Theme 2:

A solution to the problem of the high levels of Entonox being released into the atmosphere following consumption on our wards.

We are looking to identify, develop and demonstrate innovative solutions that could:

Reduce our emissions of nitrous oxide and Entonox;

Provide a competitively priced and affordable solution to ensure the safe disposal of nitrous oxide and Entonox medical gases in a sustainable way;

Reduce our purchasing of Entonox and nitrous oxide;

Reduce waste in our Entonox supply system; and

Improve air quality in the delivery rooms on labour wards.

Applicants may apply for one or both Themes.

Phase 1: Feasibility – We are looking to fund up to 5 projects up to a value of 50,000 (inclusive of VAT) each for Phase 1.

Note: Only projects successful at phase 1 will be eligible to apply to subsequent phases. Additional phases will be dependent upon funding allocation.

Phase 2: Development - We expect to fund up to 3 of the most successful phase 1 projects up to a value of *150,000 each (inclusive of VAT).

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The total funding available for the competition can change. The funders have the right to:

adjust the provisional funding allocations between the phases

apply a ‘portfolio’ approach

II.2.14) Additional information

We are looking to use this PIN to engage with the market to see what appetite there is in industry to help support and drive this challenge. Details of the challenge can also be provided in Welsh if required

II.2) Description

II.2.1) Title

Theme 2: A solution to the problem of the high levels of Entonox being released into the atmosphere following consumption on our wards.

Lot No

2

II.2.2) Additional CPV code(s)

- 24111500 - Medical gases

II.2.3) Place of performance

NUTS codes

- UKL - Wales

II.2.4) Description of the procurement

Cardiff and Vale UHB along with other Health Boards across Wales have established a group to explore how nitrous oxide can be delivered via small portable cylinders and eliminate the use of the manifold system.

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healthcare. The Welsh Government have declared a climate emergency and published NHS Wales Decarbonisation plan stating that the Welsh public sector will be carbon neutral by 2030. This ambitious plan specifically targets anaesthetic gases and includes nitrous oxide which has a global warming potential approximately 298 times that of carbon dioxide

Theme 2:

A solution to the problem of the high levels of Entonox being released into the atmosphere following consumption on our wards.

We are looking to identify, develop and demonstrate innovative solutions that could:

Reduce our emissions of nitrous oxide and Entonox;

Provide a competitively priced and affordable solution to ensure the safe disposal of nitrous oxide and Entonox medical gases in a sustainable way;

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II.2.14) Additional information

We are looking to use this PIN to engage with the market to see what appetite there is in industry to help support and drive this challenge. Details of the challenge can also be provided in Welsh if required

II.3) Estimated date of publication of contract notice

1 February 2023

Section IV. Procedure

IV.1) Description

IV.1.8) Information about the Government Procurement Agreement (GPA)

The procurement is covered by the Government Procurement Agreement: No

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Section VI. Complementary information

VI.3) Additional information

Any interested parties should email Sarah Yellen, Senior Procurement Business Manager with their contact details, a short description of

potential opportunities and their experience in the applicable field.

Further details on the project will then follow.

Details of the challenge can also be provided in Welsh if requested via Sarah Yellen

NOTE: To register your interest in this notice and obtain any additional information please visit the Sell2Wales Web Site at https://www.sell2wales.gov.wales/Search/Search_Switch.aspx?ID=127701.

(WA Ref:127701)