**Joint Action on Harmonised Products 2022 JAHARP2022-02**

**Ancillary Equipment to Solar Panels – WP2**

***(Grant Agreement No. JA2021-2-02)***

**Call for Tender for Test Laboratories**

Appendix III – Detailed Product Testing Requirements and Price List

The testing of inverters to be carried out in the framework of this Joint Market Surveillance Action will be based on the following methods if finalised during the duration of the testing contract.

The testing of Solar panel ancillary equipment, cf. inverters listed above; is subject to the requirements of:

* EMCD Directive 2014/30/EU on the harmonisation of the laws of the Member States relating to electromagnetic compatibility.
* The essential requirements of Article 3.1b of the Radio Equipment Directive (RED) 2014/53/EU on the harmonisation of the laws of the Member States relating to the making available on the market of radio equipment and repealing Directive 1999/5/EC, in the case of some samples having wireless connection, either as standard or optional feature.

The latest harmonised test standard (as published in the OJEU) are the following:

* EN 55011:2016 + A1:2017 + A11:2020 Industrial, scientific and medical equipment - Radio-frequency disturbance characteristics - Limits and methods of measurement (Class B, group 1);
* EN 55032:2015 + A11:2020 - Electromagnetic compatibility of multimedia equipment - Emission Requirements.

The purpose of testing is to identify non-compliances allowing a market surveillance authority to decide whether to take actions against a specific product.

The equipment under test in this project follows the classification according to EN55011:2016 +A1:2017 +A11:2020 => Class B, group 1 (residential environments & limits).

The indicative test programme is presented below:

|  |  |  |  |
| --- | --- | --- | --- |
| Standard | Part | Table | Limit |
| EN 55011:2016,  EN 5011:2016/A1:2017,  EN 55011:2016/A11:2020 | *Radiated emissions*  *Conducted emissions AC-mains power port*  *Conducted emissions DC- power port* | 7  4  5 | Group 1, Class B |
| EN 55032: 2015,  EN 55032:2015/A11 :2020 | *Conducted emission on wired network port* | A.12 | Class B |

**In the table below please provide the price, in Euros, of testing a single type of inverters and the production of a suitable test report.**

The project allows for the testing of approximately 20 inverters.

The indicative distribution foresees **10 units Single Inverters, 5 Micro-inverters and 5 Power Optimizers**, however this might change and thus please provide prices in all cells marked in yellow below.

The final test programme will be determined during the contracting phase, in cooperation with the selected test body.

|  |  |  |  |
| --- | --- | --- | --- |
| Tested Parameter | Unit costs testing  (EUR Excl VAT) | | |
| **1-4 product models** | **5 - 9 product models** | **10-15 product models** |
| String inverters (SI), Class B, Group 1 | | | |
| 1. Radiated emissions | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emissions AC-mains power port | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emissions DC- power port | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emission on wired network port | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| Micro Inverters (MI) Class B, Group 1 | | | |
| 1. Radiated emissions | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emissions AC-mains power port | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emissions DC- power port | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| Optimisers Class B, group 1 | | | |
| 1. Radiated emissions | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emissions DC power port - input | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |
| 1. Conducted emissions DC power port - output | <Please fill in your unit cost here> | <Please fill in your unit cost here> | <Please fill in your unit cost here> |

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