REPowerEU  
Assessment of the *Do No Significant Harm* principle

Bureau fédéral du Plan

* 1. Axis Sustainable

I-1.14 Backbone for H2 of the Federal State – FED

The DNSH self-assessment was updated to confirm that the infrastructure will be used for transport of hydrogen (the transport of CO2 is no longer in the scope compared to the initial measure). The DNSH self-assessment was also updated to include the arrangements to ensure that the DNSH conditions will be satisfied. The Royal Decree setting out the criteria for awarding the subvention (2022) provides for compliance with the DNSH principle and stipulates that the terms and conditions applicable to the subsidy will be set out in a funding agreement between the beneficiary and the Minister of Energy. The Royal Decree awarding the subsidy and the funding agreement will include the specific DNSH conditions as set out in the annex to the CID and will require the project to comply with the DNSH principle and the relevant European/national/regional environmental legislation. The project will be monitored on a regular basis regarding these aspects.

Tableau 1 Simplified approach – measure I-1.14 - H2 Backbone

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is eligible for the intervention field 077 in the Annex to the RRF Regulation with a climate change coefficient of 100 % as it intends to develop an infrastructure to H2 transport needed for energy transition. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable negative impact on the climate change adaptation objective related to the direct and primary indirect effects of the measure across its life cycle. It intends to provide infrastructure for H2 transport towards industrial and high energy-intensive processes that does not intend to change anything regarding adaptation to climate changes. |
| Water & marine resources | X |  |  |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The project ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation, article 14.1.a. It enables activities to replace fossil fuel energy generation by non-polluting renewable energy generation. The Royal Decree awarding the subsidy and the funding agreement will include the specific DNSH conditions as set out in the annex to the CID and will require the project to comply with the DNSH principle and the relevant European/national/regional environmental legislation. The project will be monitored on a regular basis regarding these aspects. |
| Biodiversity and ecosystems | X |  |  |

Tableau 2 Substantive assessment – measure I-1.14 - H2 Backbone

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Water & marine resources | X | Environmental aspects will be investigated during permitting procedures to minimize impacts on water and biodiversity.  By maximizing the re-use of existing pipelines, environmental effects are minimized, as well as effects on biodiversity. The Royal Decree awarding the subsidy and the funding agreement will include the specific DNSH conditions as set out in the annex to the CID and will require the project to comply with the DNSH principle and the relevant European/national/regional environmental legislation. The project will be monitored on a regular basis regarding these aspects. |
| Circular economy | X | By maximizing the re-use of existing pipelines, environmental effects are minimized, as well as effects on biodiversity. In case of decommissioning, all legal requirements will be maintained, including recycling of materials. From experience, there is no building waste during the construction. The Royal Decree awarding the subsidy and the funding agreement will include the specific DNSH conditions as set out in the annex to the CID and will require the project to comply with the DNSH principle and the relevant European/national/regional environmental legislation. The project will be monitored on a regular basis regarding these aspects. |
| Biodiversity and ecosystems | X | Environmental aspects will be investigated during permitting procedures to minimize impact on water and on the biodiversity. By maximizing the re-use of existing pipelines, environmental effects are minimized, as well as effects on biodiversity. The Royal Decree awarding the subsidy and the funding agreement will include the specific DNSH conditions as set out in the annex to the CID and will require the project to comply with the DNSH principle and the relevant European/national/regional environmental legislation. The project will be monitored on a regular basis regarding these aspects. |

I-1.19 Research platform for energy transition – FWB

Tableau 3 - Simplified approach – I-1.19 - Research platform for energy transition – FWB

| Env. Objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | This project is tracked as supporting a climate change objective with a coefficient of 100% (for intervention fields (022, 033). |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It's a research activity within universities. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It's a research activity within universities. |
| Circular economy | X |  |  |
| Pollution prevention and control | X |  |  |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It's a research activity within universities. |

Tableau 4 - Substantive assessment – I-1.19 - Research platform for energy transition – FWB

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Les cahiers des charges prendront en compte les aspects de durabilité mais il ne sera pas toujours possible de trouver des équipements qui répondront à ces critères, certains équipements devront d’ailleurs être faits sur mesure…  Le but est que ces équipements soient réparés à chaque fois que cela sera possible. Certains d’entre eux pourront être utilisés durant plusieurs dizaines d’années. Les équipements en fin de vie et les éventuels effluents liés à leur utilisation seront traités selon les normes en vigueur. |
| Pollution prevention and control | X | Les équipements prévus dans cette sous-plateforme ont un impact négligeable sur cet objectif. Les éventuels effluents provenant de l’utilisation des équipements seront traités selon les normes en vigueur. En considérant les technologies qui pourraient être développées dans des projets de recherche utilisant les équipements, une attention particulière sera portée principalement sur la pollution de l’air liée aux éventuels effluents produits par les technologies, via des analyses. Les projets à venir permettront d’évaluer précisément l’impact de ces nouvelles technologies et de considérer cet impact dans les futurs choix politiques.  Les sites envisagés (i) ne sont pas situés en zone de protection de captage, (ii) la parcelle est non polluée (catégorie 1) et n’est pas situé en zone d’incidence sur Natura 2000 ou réserve naturelle ou réserve forestière. Il n'y a donc aucune contre-indication à la mise en œuvre de sondes géothermiques à l'endroit prévu, par rapport à d'éventuelles nuisances environnementales. Le dispositif sera soumis à une simple déclaration de classe 1C. Les connaissances actuelles indiquent que les essais envisagés n’entraîneront pas de risques de dégradation de l’environnement liés à la préservation de la qualité de l’eau.  De plus, certaines recherches porteront sur la réduction des émissions atmosphériques de certains composants des systèmes énergétiques de demain, contribuant de ce fait à une réduction de la pollution de l’air. |

I-1.21 Off-shore energy island – FED

The DNSH self-assessment was updated to include the most available information.

Tableau 5 – Simplified approach – I-1.21 - Off-shore energy island

|  | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is tracked as supporting a climate change objective with a coefficient of 100% (intervention field 077). The Princess Elisabeth Island will connect new wind farms in the Belgian part of the North Sea with the onshore Belgian transmission grid. In addition, provisions will be made for new interconnections in HVDC with for example the United Kingdom and Denmark. The building of the energy-island is an important step in developing a European electricity grid at sea and achieving European climate ambitions of having 300 GW of offshore wind energy by 2050.  The measure is also tracked to intervention field 049, with a climate tagging of 40%. This part of the project has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. Indeed, it is about taking care of biodiversity in the project area. |
| Climate change adaptation | X |  |  |
| Water & marine resources | X |  |  |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The project ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation (art 16). It enables activities to replace fossil fuel energy generation by non-polluting renewable energy generation. As a rule, all necessary procedures, work method statements and provisions shall be developed and implemented to ensure the correct use, handling and maintenance of hazardous substances and their associated equipment and to prevent the occurrence of leaks. This applies to both the construction phase and the operational phase of the energy island. The nature of and treatment of the various waste streams on the island will be described in a waste management plan.  Several measures to prevent pollution are included in the island design. Some of the most important measures:   * Provision of comprehensive containment systems under the transformers and shunt reactors; * Water from risk zones (zones with a risk of calamities) is connected to a coalescence filter; * Purification of sanitary water prior to discharge, in accordance with MARPOL regulations.   Contractors are required to include a comprehensive strategy to address issues of climate change. The strategy must outline how the Contractor mitigates risks related to emissions of carbon dioxide and other greenhouse gases and air pollutants. In particular for powering machinery and vessels, Contractors must implement measures to minimise emissions of carbon dioxide and other greenhouse gases to the maximum extent possible, e.g., by deploying energy efficient equipment, use of biofuels, renewable energy sources (wind, solar).  For each project phase, an Emergency Response Plan (ERP) will be developed, which defines the procedures and communication lines that should be activated in the event of an incident, including environmental spills, to prevent and minimize the spread and possible impact of pollution on the environment. Part of the ERP is the provision and correct use of suitable sorbents to quickly contain (oil) leaks. The ERP is reviewed by the federal Department for the Marine Environment.  Potential emissions of hazardous substances into the air, seabed or seawater are discussed in the Environmental Impact Report (EIR). The EIR also investigates potential emissions of noise and light. Given the various measures already included in the project, no significant impact is anticipated due to emissions of pollutants. Further requirements to prevent and control pollution might be imposed in the environmental permit. |
| Biodiversity and ecosystems | X |  |  |

Tableau 6 - Substantive assessment – I-1.21 - Off-shore energy island

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Climate change adaptation | X | The design lifetime of the energy-island is 100 years. Potential worsening of the environmental conditions by climate change during this lifetime are considered in the design. Information on climatic change is obtained from the sixth assessment report (AR6), published by the Intergovernmental Panel on Climate Change (IPCC). The SSP5-8.5 or RCP8.5[[1]](#footnote-2) are considered in the design. The Regional Sea Level Rise (RSLR) applied in the design (structural design of installed caissons and seawall, caisson toe stability, overtopping, drainage, breakwater toe stability…) is based on the SSP5-8.5 scenario from IPCC AR6, considering only processes for which projections can be made with at least medium confidence, relative to the period 1995–2014. The island level is designed based on a more extreme scenario for sea level rise (SLR) compared to other components. This selected SLR scenario (SSP5-8.5 medium confidence scenario according to IPCC AR6 and the 95th percentile from the projection) in combination with an extreme sea level with a return period of 100,000 years is applied, to ensure the island level will always remain emerged. |
| Water & marine resources | X | Building, operating and decommissioning the energy-island requires an environmental permit, based on the Belgian federal Law for the protection of the marine environment and the organization of the marine spatial planning in the Belgian marine areas (Marine Environment Act of 11 December 2022). The permit application includes an environmental impact report (EIR). Given the nearby presence of a Habitats area (Special area for conservation Vlaamse Banken), a Draft Appropriate Assessment (AA) was also performed, in accordance with the Royal Decree of 27 October 2016 on the designation and management of marine protected areas.  The EIR and Draft AA for the energy island were completed in December 2022. The application for the environmental permit and Natura 2000-authorization was submitted in January 2023. The integrated permit procedure, comprising public consultation, the environmental impact assessment (EIA) and the actual Appropriate Assessment by MUMM (Management Unit of the Mathematical Model of the North Sea), is currently ongoing.  The EIR investigates the impact of the project on the achievement of good environmental status as defined under the Marine Strategy Framework Directive. Some of the aspects that were investigated:   * Impact of ambient noise due to vessels and constructions works at the offshore construction site (underwater noise, D11); * Risk of pollution (D8); * Impact on seafloor integrity and bottom shear stress due to the installation of an island (D6 and D7); * Impact on biodiversity, such as habitat loss (direct habitat loss or sedimentation of suitable habitat), mortality… (D1); * …   Several measures have already been included in the project (during an extensive scoping process and further in the design process of the energy-island), such as the elimination of island locations (given anticipated significant adverse impacts on protected gravel habitat areas), alteration of the island orientation and shape (to minimize the impact on local currents and sedimentation-erosion patterns), inclusion of design principles on the island to prevent pollution… These measures have been considered in the EIR and Draft AA.  The EIR concludes that no unacceptable impacts are expected during the construction, operation, and decommissioning of the energy-island. The project is expected not to compromise the achievement of good environmental status. The Draft AA concludes that the integrity of the Habitats Area Vlaamse Banken (including the protected habitats and species) will not be adversely affected. |
| Circular economy | X | The energy-island is designed in such way that natural resources are applied efficiently:   * The energy-island is built on a sand bank, to minimize the required amount of natural resources, especially the amount of cement for the construction of caissons and sand for composition of concrete and the infill of the caissons and island core. * The island layout (configuration of substations, transformers, utility buildings…) is worked out in such way that as least surface required as possible. The island footprint is thus minimized as much as possible. * The energy-island is being designed for a long lifetime (100 years). A comprehensive maintenance strategy for the operational phase will be developed. This will include regular inspections on and around the island, to be able to timely detect potential issues and perform repairs, thus ensuring the durability of the island for this long time period. The natural materials and other resources for building the energy-island are thus applied and sustained as long as possible. * The substations on the island will be provided with a system that captures and stores rainwater for reuse in the modules.   Besides, an Environmental Management Plan (EMP) was developed for the project. The requirements listed in this EMP are included in the contracts of the different contractors that (will) design and build the energy-island and its transmission infrastructure (substations), meaning that they are contractually bound to implement these requirements. Several requirements relate to waste disposal and waste management:   * The Contractor shall minimize the generation of waste and maximize recycling. * On the onshore construction sites and offshore site (island), waste separation is mandatory. Domestic waste shall not be mixed with industrial waste and dangerous industrial waste shall not be mixed with non-dangerous industrial waste. * The Contractor shall ensure removal of waste on a frequent basis, produced during execution of the project on the Sites (e.g.: waste oil) according to the applicable local legislation. * The Contractor shall present his waste management plan for collecting, storing and removing waste, identifying:   + How the waste will be collected and stored.   + How and by whom the waste will be removed. * The Contractor shall comply with the legal requirements regarding waste handling such as but not limited to:   + Establish the inventory of waste present on the Sites.   + Have at disposal the list of waste treatment companies the Contractor calls upon.   + Collect certificate of final waste treatment, issued by the authorized organization in charge of the final waste treatment.   Elia will also develop an overarching waste management plan (covering all island elements and aligning all different contactor’s waste management plans). This overarching island waste management plan will be reviewed by MUMM and the federal Department for the Marine Environment. This review will allow to align the island waste management plan with regional waste management plans and programs. |
| Biodiversity and ecosystems | X | The construction, operation and decommissioning of the energy-island require an environmental permit and a Natura-2000 authorization. The application for these permits requires an environmental impact report (EIR) and a Draft Appropriate Assessment (AA). Preceding the drafting of the actual EIR and Draft AA, an extensive scoping process was performed, together with MUMM.  As a result of this scoping process during the drafting of the EIR and Draft AA, several measures were identified and implemented into the project, to minimize the impact on protected and valuable habitats and species. Some examples:   * Selection of island location (avoid impact): * Outside the Habitats area Vlaamse Banken; * Elimination of two location alternatives, given anticipated significant adverse impacts on protected gravel habitat areas; * Alteration of the island orientation and shape, to minimize the impact on local currents and sedimentation-erosion patterns (potentially resulting in sedimentation of valuable gravel bed areas); * Pre-scour-dredging, to reduce sediment displacement and minimize potential gravel bed sedimentation.   The EIR concludes that no unacceptable impacts are expected during the construction, operation, and decommissioning of the energy-island. The Draft AA concludes that the integrity of the Habitats Area Vlaamse Banken (including the protected habitats and species) will not be adversely affected.  Elia also investigates the implementation of Nature Inclusive Design (NID)-elements into the energy island. NID elements can promote the restoration of Flat oyster reefs, contribute to the conservation goals of seabirds... |

I-1.54 Installation of heat pumps and solar panels for public housing - WAL

Tableau 9 Simplified approach – measure I-1.54 - Installation of heat pumps and solar panels for public housing

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | This project is tracked as supporting a climate change objective with a coefficient of 100%: intervention field 029 for solar panels, intervention field 025bis for the installation of heat pumps. |
| Climate change adaptation |  | X | La mesure n’a aucune incidence prévisible ou a une incidence prévisible négligeable sur l’objectif environnemental liée aux effets directs et aux principaux effets indirects de la mesure tout au long de son cycle de vie, compte tenu de sa nature. L’installation de panneaux solaires ne modifie pas la capacité d’un bâtiment à faire face aux risques climatiques. |
| Water & marine resources |  | X | L’activité soutenue par la mesure a une incidence prévisible négligeable sur cet objectif environnemental, compte tenu à la fois des effets directs et des principaux effets indirects tout au long du cycle de vie. Aucun risque de dégradation de l’environnement lié à la préservation de la qualité de l’eau et au stress hydrique n’est détecté, étant donné que l’équipement ne nécessite pas d’utilisation de l’eau. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | La mesure « contribue de manière substantielle » à cet objectif environnemental, conformément au règlement sur la taxinomie, article 14.1.a, étant donné que cette mesure vise la réduction de l’utilisation d’énergies fossiles ce qui engendrera une réduction des émissions dans l’air et une amélioration consécutive de la santé publique.  La mesure ne devrait pas engendrer une augmentation significative des émissions de polluants dans l’air, l’eau ou le sol.  De plus, cette mesure est en accord avec le déploiement de solutions de remplacement sobres en carbone en particulier elle est complémentaire à l’installation de pompes à chaleur.  Les équipements concernés ne sont pas susceptibles d’être en contact direct avec les occupants. |
| Biodiversity and ecosystems |  | X | L’activité soutenue par la mesure a une incidence prévisible négligeable sur cet objectif environnemental, compte tenu à la fois des effets directs et des principaux effets indirects tout au long du cycle de vie. Le programme d’investissement concerne des bâtiments déjà construits et non situés dans des zones sensibles du point de vue de la biodiversité ou de la proximité de telles zones. |

Tableau 10 Substantive assessment – measure I-1. 54 - Installation of heat pumps and solar panels for public housing

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy |  | La mesure prévoit des spécifications techniques en ce qui concerne leur durabilité.  Les installations photovoltaïques seront réalisées par des installateurs certifiés afin de garantir leur bonne mise en œuvre.  Les importateurs de panneaux sont soumis à l’obligation de collecte et de traitement par le biais de la législation relative aux déchets des équipements électriques et électronique (DEEE).  Le recyclage des panneaux solaires en Belgique est assuré par l’association PV Cycle qui assure un recyclage des panneaux quel que soit leur type à hauteur de plus de 90 %.  Les appareils de production de chaleur qui seront remplacés par les pompes à chaleur suivront en priorité les filières de recyclage. |

I-1.55 Public building renovation - FED

Tableau 11 Simplified approach - Measure I-1.55 - Public building renovation

| **Env. objective** | **Yes** | **No** | **Justification if 'No'** |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | Photovoltaic panels - FED  The measure is eligible for the intervention field 029 in the Annex to the RRF Regulation with a climate change coefficient of 100 %. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective.  To track the effect of the measure, the production, self-consumption, and consumption of gray energy will be carefully monitored for each complex where panels are installed.  Relighting – FED  The measure is eligible for the intervention field 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100 % since reducing energy use for lighting should significantly reduce the sector's CO2 emissions. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective.  Car charging stations (points) in the fed buildings – FED  The measure is eligible for the intervention field 077 (selected by the project promoter) in the Annex to the RRF Regulation with a climate change coefficient of 100 % since installing charging infrastructure for electric vehicles will increase the electrification of transport. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective. |
| Climate change adaptation |  | X | The activity that is supported by the measure has no or an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. It only concerns the installation of solar panels and of car charging stations, as well as of relighting, none of which affects the capacity to deal with climate risks. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The measure does not cover water fittings, water appliances or other water related infrastructure. |
| Circular economy | X |  | / |
| Pollution prevention and control |  | X | Photovoltaic panels and Relighting – FED  The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation article 14.1.a. It reduces the use of fossil fuels and thus the release of air pollutants.  Car charging stations (points) in the fed buildings – FED  The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation article 14.1.a. It prevents and reduces pollutant emissions. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 12 - Substantive assessment – Measure I-1.55 - Public building renovation

|  |  |  |
| --- | --- | --- |
| **Env. objective** | **No** | **Substantive justification** |
| Circular economy | X | Photovoltaic panels - FED  Solar panels use (scarce) materials and may create waste over time. Circularity in solar panels is about:  - Using existing photovoltaic plants that are not used anymore or replaced by recent more efficient installations  - Producing new solar panels sustainably, with low environmental impact and preferably recycled materials  - Designing panels to maximize their lifespan and make them easily recyclable, including their dismantling  - Recycling discarded panels at the end of their life as high-quality as possible  These recommendations are taken into consideration when drawing up the projects. The investment project will comply with European, regional and local legislation on pollution reduction. The measure will also respect the regional or local circular economy strategy and will be oriented to the principles of green public procurement. The premium system for energy renovations of buildings will set up premiums for individuals to support work carried out exclusively by recognized contractors. These companies are obliged to deliver their waste in recognized and controlled channels.  Relighting – FED  Les études et analyses techniques préalables à la mise en œuvre des chantiers intégreront la hiérarchisation du traitement en vigueur: prévention - préparation au réemploi - recyclage - valorisation énergétique – élimination.  La réglementation en vigueur en Belgique découle de la directive Cadre 2008/98/CE qui fixe des objectifs de recyclage: - 70% de recyclage des déchets de construction démolition (DCD) et l’obligation de démontage et tri sur chantier des éléments réutilisables et de récupération des matériaux (pour une deuxième vie, réutilisation, revente).  Les DCD sont triés sur chantiers selon des catégories spécifiques (dangereux, inertes, recyclables, résiduels …) et valorisés ou éliminés selon des obligations et prescriptions, notamment via les permis d’environnement qui fixent les conditions d’avant chantiers.   * déchets dangereux (amiante, piles, accumulateurs, transformateurs, peintures, huiles usagées, tubes TL, DEEE, bois traité, goudron, …) : obligation de remettre ses déchets dangereux à un éliminateur agréé et de tenir un registre des déchets dangereux (on peut citer l’exemple de l’élimination très réglementée de l’amiante). * déchets inertes (sables, concassages, béton, briquaillons, …) : recyclage obligatoire de la fraction pierreuse et sableuse des DCD dans les travaux de terrassements, remblaiements, sous fondations …   L’innocuité des apports de nouveaux matériaux de construction et leur circularité ainsi que la gestion des déchets de construction feront partie des critères de sélection et de priorisation des projets, en application de la réglementation belge (transposant les directives européennes) qui impose de privilégier les matériaux durables, naturels et/ou issus de sources renouvelables. Le réemploi, la réutilisation et le recyclage sont privilégiés par rapport à la valorisation énergétique ou à l’élimination.  En particulier, lorsque des équipements électriques et électroniques (EEE) deviennent des déchets, on parle de "DEEE" (déchets d'équipements électriques et électroniques). Des réglementations particulières rassemblées dans la directive 2012/19/UE, mieux connue sous le nom de directive WEEE (« Waste Electric and Electronic Equipment »), s’appliquent à ce type de déchets. En Belgique la reprise et le recyclage de ces déchets est organisé par Recupel.  Car charging stations (points) in the fed buildings – FED  Research studies have conducted lifecycle assessments of charging stations for Electric vehicles. From a Life cycle analysis point of view, the energy efficiency of a single charger is 1.36MJ/kWh and the emission factor is 94,06g CO2/kWh.  The charging points that are on the market today have an average primary lifetime of 12 years.  The charging points however are not end-of-life after this first usage. Under the 4 R’s (reduce, reuse, refurbish and recycle) the charging points can first be adapted to have a second life by replacing certain key parts, before having been recycled part by part.  To tailor this model, the charging stations have a modular eco-design. This allows the replacement of worn-out parts at different stages, without having to replace the entire structure to ensure modularity, longevity, and recyclability.  Charging infrastructure consists of types of recyclable materials. First there are the electronics that ensure the distribution of the electricity to the car. These consist of rare materials and are recycled for their value at the end of their first life in the charging point. Second stream of materials is the steel construction that supports the electronics.  All these materials, and the charging infrastructure, are subject to the take-back obligation that is in place throughout Europe. In Belgium this is executed by Recupel.  The oldest charging stations in Europe are about 8 years old and have thus not yet reached the end of their life. The circular process of this infrastructure will be worked out in the coming years. |

I-1.56 Financing vehicle for Design-Renovate-Finance-Maintain scheme - FED

Tableau 13 Simplified approach – measure I-1.56 - Financing vehicle for Design-Renovate-Finance-Maintain scheme

|  |  |  |  |
| --- | --- | --- | --- |
| Env. objective | Yes | No | Justification if 'No' |
| Climate change mitigation |  | X | The measure 'contributes substantially' to this objective, pursuant to the Taxonomy Regulation, article 10.1.b, as it will improve the energy efficiency of the federal government buildings.  The specifications of the public tender will be aligned with the requirements of the "Energy performance of Buildings Directive". |
| Climate change adaptation | X |  |  |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The measure financed by RRF does not cover water fittings, water appliances or other water related infrastructure. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure 'contributes substantially' to this objective, pursuant to the Taxonomy Regulation, article 14.1.a. It reduces the use of fossil fuels for space heating and thus the release of air pollutants. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns the renovation of existing buildings and will thus not affect protected areas. |

Tableau 14 Substantive assessment – measure I-1.56 - Financing vehicle for Design-Renovate-Finance-Maintain scheme

|  |  |  |
| --- | --- | --- |
| Env. objective | No | Substantive justification |
| Climate adaptation | X | The specifications of the public tender will ask for a climate risk screening and the renovation activity will implement the identified physical and non-physical solutions ('adaptation solutions') that reduce the most important physical climate risks that are material to that activity. Mitigations for potential flood risks (as retention area) and extreme temperature (as external blinds, cooling oasis, ground cooling will be analysed and implemented as per need). |
| Circular economy | X | The definition of sustainable criteria, the technical clauses and sustainability approach will be included in sub-contractor contract including but not limited to:  At least 70 % (by weight) of the non-hazardous construction and demolition waste (excluding naturally occurring material referred to in category 17 05 04 in the European List of Waste established by Decision 2000/532/EC) generated on the construction site is prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol.  Operators limit waste generation in processes related to construction and demolition, in accordance with the EU Construction and Demolition Waste Management Protocol and considering best available techniques and using selective demolition to enable removal and safe handling of hazardous substances and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction and demolition waste.  Positive impacts can be obtained by using upcycled materials at all levels such as upcycled concrete, glass, re-purposed cladding, or partitions.  Future proof assembly and apparent technical elements improve building agility and carbon performances by ease of upgrading finishes and techniques according to life expectancy. |

I-1.57 Energetische investeringen in overheidsgebouwen- VLA

Tableau 15 Simplified approach - Measure I-1.57 - Energetische investeringen in overheidsgebouwen

| **Env. objective** | **Yes** | **No** | **Justification if 'No'** |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is eligible for the intervention field 026bis in the Annex to the RRF Regulation with a climate change coefficient of 100 %. It will improve the energy usage of government buildings in Flanders. It will also eliminate carbon-based heating systems. |
| Climate change adaptation |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation article 11.a.1. For example, improved building insulation will provide better protection against heatwaves. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The measure does not cover water fittings, water appliances or other water related infrastructure. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation. It reduces the use of fossil fuels for space heating and thus the release of air pollutants (art 14.1.a). |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 16 Substantive assessment - Measure I-1.57 - Energetische investeringen in overheidsgebouwen

|  |  |  |
| --- | --- | --- |
| **Env. objective** | **No** | **Substantive justification** |
| Circular economy | X | Wat betreft verwijderde materialen:  Bij het verwijderen van materialen wordt sorteren aan de bron, op de werf of door nasortering gestimuleerd door de Openbare Vlaamse Alvalstoffen maatschappij (OVAM). Materialen die vermeld worden in de lijst van art.4.3.2 van Vlarema (Vlaams materialendecreet), moeten apart gehouden worden als ze apart ontstaan. Wanneer bijv. Puin en glas apart vrijkomen bij de sloop, mogen deze niet samengevoegd worden omdat de twee fracties achteraf niet meer gescheiden kunnen worden. Voor grote werven (art. 4.3.3 Vlarema) is de opmaak van een sloopopvolgingsplan vereist. Na parlementaire goedkeuring van Vlarema 8, zal ook de verdere sloopopvolging voor deze werven vanaf 1.07.2022 verplicht worden  Uit een studie van OVAM uit 2013 blijkt dat ongeveer 90% van het bouw- en sloopafval vandaag wordt gerecycleerd, wat voornamelijk slaat op de steenachtige fractie (dus vooral puin dat als gerecycleerde granulaten opnieuw op de markt komt, om bijv. In te zetten voor funderingen van wegen en parkings). De niet-steenachtige fractie bestaat bijvoorbeeld uit plastics, die meestal uiteindelijk verbrand worden met energierecuperatie. Staal zal bijvoorbeeld zeker gerecupereerd worden, aangezien het een stroom is met positieve marktwaarde.  Wat betreft verwijderd asbest bij energetische renovatieprojecten: het verwijderd asbest zal selectief ingezameld en gestort worden op een vergunde stortplaats, zoals vastgelegd in het Materialendecreet. Er wordt momenteel ook gezocht naar andere manieren van verwerking (van ontgifting tot recyclage), wat een onderdeel is van het OVAM-project Recyclagehub.  Wat betreft nieuwe materialen:  Nieuw gebruikt materiaal zal voornamelijk primair zijn. Er bestaan op dit moment geen wettelijke normen/verplichtingen voor hergebruik of het gebruik van recyclaten (recycled content) bij bouwmaterialen. In het kader van « Vlaanderen circulair », een partnerschap van overheden, bedrijven, middenveld en kenniswereld die samen actie ondernemen op het vlak van circulaire economie in Vlaanderen wordt gezocht naar de meest geschikte oplossingen (bijv. Voor bepaalde technische normen die het gebruik van recyclaten verhinderen). De RRF- maatregelen zullen steeds rekening houden met de evoluties op dit vlak, teneinde te zorgen voor maximale durability, reparability, upgradeability, reusability and recyclability of used products.  Engagementen Het Facilitair Bedrijf  Het Facilitair Bedrijf neemt in zijn opdrachtdocumenten naar zowel architecten als aannemers een clausule op met betrekking tot duurzaamheid in functie van onze lopende ISO14001 en ISO50001-certificatie.  Voor elke opdracht bepaalt Het Facilitair Bedrijf een ambitieniveau aan de hand van onze duurzaamheidsmeter GRO (https://www.gro-tool.be/). Hierin worden specifieke criteria/eisen aan verantwoord materiaalgebruik en afvalpreventie gesteld (binnen GRO, zie criterium MAT). Daarnaast hanteert Het Facilitair Bedrijf hierbij eveneens de TOTEM-tool (https://www.totem-building.be/) van OVAM om de offertes van de ontwerpers hierop te beoordelen. |

I-1.58 Zonnepanelen voor scholen GO! - VLA

Tableau 17 Simplified approach – measure I-1.58 - Zonnepanelen voor scholen GO!

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 029 in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100%. Het doel van de maatregel en de aard van het steunverleningsgebied steunen de doelstelling klimaatmitigatie direct. |
| Climate change adaptation |  | X | Het installeren van zonnepanelen verandert niets aan het vermogen van een gebouw om klimaatrisico's te weerstaan. |
| Water & marine resources |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Het plaatsen van zonnepanelen heeft geen impact op water- en mariene hulpbronnen. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 14.1.a. Het plaatsen van zonnepanelen vermindert het gebruik van fossiele brandstoffen en dus de uitstoot van luchtverontreinigende stoffen. |
| Biodiversity and ecosystems |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Deze maatregel heeft geen negatieve impact op biodiversiteit en het behoud van ecosystemen. |

Tableau 18 Substantive assessment – measure I-1. 58 - Zonnepanelen voor scholen GO!

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Op basis van het type gebouwen en installaties waar de investeringen zich op richten is het aannemelijk dat er in een naar verhouding klein aantal gevallen afvalproductie en restfractie bouwafval ontstaat.  De sloopwerkzaamheden zullen wordt beperkt, rekening houdend met de beste beschikbare technieken.  Over dit principe zijn de deelnemers aan de projectoproep vooraf geïnformeerd. Er is een monitoring- en beheerssysteem vastgelegd. In de gunningscriteria van de projectoproep zullen over verwijdering, veilige verwerking van resten, hergebruik en hoogwaardige recycling, afspraken worden verlangd. De vereiste van een certificatie zal in de gunningsbeslissing worden vastgelegd.  Voor de meting van de restfractie en het hergebruik wordt verwezen naar de criteria van de European List of Waste Decision (2000/532/EC) en de richtsnoeren voor afvalverwerking voorafgaand aan sloop en renovatie van gebouwen. (Richtlijn 2008/98/EG). De criteria van deze richtlijnen zijn vervat in bestaande Vlaamse regelgeving.  Bij het verwijderen van materialen wordt sorteren aan de bron, op de werf of door nasortering gestimuleerd door de Openbare Vlaamse Alvalstoffen maatschappij (OVAM). Materialen die vermeld worden in de lijst van art.4.3.2 van Vlarema (Vlaams materialendecreet), moeten apart gehouden worden als ze apart ontstaan. Fracties mogen niet worden samengevoegd. Voor grote werven (art. 4.3.3 Vlarema) is de opmaak van een sloopopvolgingsplan vereist. |

I-1.59 Energetische investeringen in zorginfrastructuur (VLA)

Tableau 19 Simplified approach – measure I-1.59 - Energetische investeringen in zorginfrastructuur

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 026bis in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100%.  Door deze plannen wordt de CO2-uitstoot van gebouwen en installaties significant beperkt. De projectoproep is bedoeld voor maatregelen die GHG emissies reduceren of de energie-efficiëntie van gebouwen en installaties verbeteren.  Voor elk van de te beoordelen investeringsmaatregelen zal vooraf met een analyse en audit de haalbaarheid van dit resultaat worden geverifieerd, en zullen voor de gekozen methodes en ingrepen, de maatstaf en metingscriteria worden vastgelegd volgens de dan best beschikbare technologie. |
| Climate change adaptation |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 11.1.a. Door deze regeling worden gebouweigenaren begeleid bij het nemen van energiebesparende maatregelen rekening houdend met klimaatadaptatie. De regeling zelf draagt door de lange looptijd en doelhorizon in 2050 bij aan klimaatadaptatie. |
| Water & marine resources |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus.Deze regeling heeft geen invloed op het gebruik van mariene hulpbronnen. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 14.1.a. De audits en renovaties richten zich op stimulering en bestendigen van duurzame energieopwekking, of de gevoelige verhoging van hun efficiëntie. Daarmee wordt de inzet van fossiele bronnen en daarmee gepaard gaande milieuvervuiling verkleind. Inzet van fossiel gestookte energieopwekking zal in de oproep uitdrukkelijk als uitsluitende voorwaarde worden opgenomen. |
| Biodiversity and ecosystems |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus It only concerns existing buildings and will thus not affect protected areas. |

Tableau 20 Substantive assessment – measure I-1.59 - Energetische investeringen in zorginfrastructuur

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Op basis van het type gebouwen en installaties waar de investeringen zich op richten is het aannemelijk dat er in een relatief groot aantal gevallen afvalproductie ontstaat.  De processen die verband houden met sloopwerkzaamheden zullen wordt beperkt, rekening houdend met de beste beschikbare technieken. Over dit principe zal met de deelnemers aan de projectoproep een monitoring- en beheerssysteem worden vastgelegd.  In de gunningscriteria van de projectoproep zullen over verwijdering, veilige verwerking van resten, hergebruik en hoogwaardige recycling, afspraken worden verlangd. De vereisten voor monitoring en certificatie zullen in de gunningsbeslissing worden vastgelegd en per gebouw of installatie aan de kenmerken en omvang van de ontstane restfractie of afvalsoort worden aangepast. |

I-1.60 Energetische renovatie VRT-gebouw- VLA

Tableau 21 Simplified approach – measure I-1.60 – Energetische renovatie VRT-gebouw

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 026bis in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100%.  Duurzame investeringen zullen de energie-efficiëntie van het VRT-gebouw substantieel verbeteren.  De investeringen zullen het verbruik van fossiele brandstoffen verminderen. |
| Climate change adaptation |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 11.1.a. De investeringen leiden tot eigen productie van groene elektriciteit, beter gebruik van materialen. De installatie van een monitoringsysteem leidt tot opbouw van kennis over duurzame infrastructuur. |
| Water & marine resources |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Als onderdeel van het renovatieproject wordt een systeem geïnstalleerd dat enerzijds regenwater optimaal inzet, en anderzijds vervuild water via grijswaterrecuperatie lokaal zuivert en wederom inzet voor secundair watergebruik. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 14.1.a. Deze investering leidt niet tot verhoging van verontreiniging. De maatregelen leiden tot een substantiële vermindering van uitstoot van broeikasgassen door generatie van hernieuwbare energie.  Er wordt infrastructuur voorzien die het gebruik van elektrische voertuigen van zowel werknemers als bezoekers aanmoedigt. |
| Biodiversity and ecosystems |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Deze investering heeft geen gevolgen voor ecosystemen en de biodiversiteit op de site.  In overleg met de bouwheer worden maatregelen aangemoedigd om de bestaande begroeiing te behouden. |

Tableau 22 Substantive assessment – measure I-1.60 - Energetische renovatie VRT-gebouw

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Bouwmaterialen en sloopafval vertegenwoordigen een groot aandeel van de totale milieu-impact van een gebouw. Dit materialengebruik en ontzorging zal worden beperkt, maar de omvang van de inspanning kan niet met zekerheid worden vastgelegd.  Daarom zijn er tussen de bouwheer en het uitvoerende consortium van bouwaannemers een afspraak gemaakt over hoe input en output van materialen zal worden gemeten. Dit omvat de volledige periode van ontwerp en de uitvoeringsfase. De Vlaamse Overheid heeft als gunningsvoorwaarde van de subsidie bedongen over die monitoring op de hoogte worden gesteld. De Vlaamse overheid zal zich verder baseren op de aanbevelingen van EU 2019/786 betreffende de renovatie van gebouwen.  Voor circulariteit en terugdringen van afval onderscheiden we drie niveaus. Overkoepelend wordt er gebruik gemaakt van het GRO-instrument, opgesteld door het Facilitair Bedrijf van de Vlaamse Overheid. Dit instrument houdt met name rekening met EU-richtlijn 2010/31/EU betreffende de energieprestatie van gebouwen (EPBD).  Besparen  Het materiaalgebruik (hoeveelheid, volume) is tot een minimum beperkt. Minder materiaalgebruik betekent minder transport van materialen naar de werf, minder productiekosten, minder afval en minder energie om te recycleren/af te breken. Het VRT Morgen gebouw is een compact gebouw, wat per definitie minder materialen vraagt. Door bijvoorbeeld te kiezen voor hogesterktebeton wordt minder volume aan beton gecreëerd voor een zelfde mechanische sterkte. En ook een onderhoudsarm gebouw bespaart gedurende de volledige levensduur op materialen en dus op milieu-impact.  Verwijderen/verwerken van afval  Voor het verwijderen van sloopafval en verpakkingsmateriaal is de wetgeving van het Brussels Hoofdstedelijk Gewest van toepassing, met name de ordonnantie 2021/05-06-01. Deze ordonnantie geeft uitvoering aan verordening (EG) nr. 1013/2006 en richtlijn 2008/98/EG, die dus zullen gerespecteerd worden bij het uitvoeren van de werken.  Gebruik van materialen met lage milieu-impact  Om dit in kaart te brengen en materiaalkeuzes ten opzichte van elkaar af te wegen, gebruikt de uitvoerder van de werken het TOTEM tool. Het TOTEM tool van de OVAM (Openbare Vlaamse Afvalmaatschappij) overheidsorgaan dat toeziet op circulaire economie en duurzaamheid. Het bedoelde instrument zet de richtlijnen en standaarden om van de normen EN15804+2 en EN15978 en baseert zich op de EPD-richtlijnen zoals opgenomen in Belgische wetgeving (KB Milieuboodschappen 25/04/2014). |

I-1.61 Renovatie en energiemaatregelen AWV– VLA

This measure is composed of four sub-measures:

* Replacing existing combustion plants on natural gas and fuel oil with more energy efficient heat pump installations equipped with smart control.
* Reduction of energy demand through building envelope interventions, in particular post-insulation of facades, insulation of roofs and renewal of exterior joinery.
* Generation of renewable energy by means of solar panels on the roofs of buildings and canopies.
* Reduction of the energy demand by renewing the lighting installation (= relighting), replacing the existing luminaires with LED luminaires in the offices and in the hangars and the outdoor lighting related to the Roads and Traffic Agency (Flemish administration) winter service operation.

Sub-measure 1: Replacing existing combustion plants on natural gas and fuel oil with more energy efficient heat pump installations equipped with smart control

Tableau 23 Simplified approach – measure I-1.61/1 - Renovatie en energiemaatregelen AWV

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 026bis in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100%. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle, as it concerns the replacement of existing combustion plants on natural gas and fuel oil with more energy efficient heat pump installations. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. It does not concern water systems. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation article 14.1.a. It reduces the use of fossil fuels for space heating and thus the release of air pollutants. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 24 Substantive assessment – measure I-1.61/1 - Renovatie en energiemaatregelen AWV

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Regarding disposed materials:  When disposing of materials, sorting at the source, on site or by post-sorting is encouraged by the Public Flemish Waste Agency (OVAM). Materials mentioned in the list of art.4.3.2 of Vlarema (Flemish Materials Decree), must be kept separately if they arise separately. For example, when rubble and glass are released separately during demolition, they may not be combined because the two fractions cannot be separated afterwards. For large construction sites (art. 4.3.3 Vlarema), the preparation of a demolition succession plan is required. After parliamentary approval of Vlarema 8, further demolition follow-up will also become mandatory for these yards from 1.07.2022.  A 2013 study by OVAM shows that about 90% of construction and demolition waste is recycled today, which mainly refers to the stony fraction (i.e., mainly rubble that is put back on the market as recycled aggregates, to be used e.g., for road foundations and parking lots). The non-stony fraction consists, for example, of plastics, which are usually eventually incinerated with energy recovery. Steel, for example, will certainly recover, since it is a stream with positive market value.  As for removed asbestos in energy renovation projects, the removed asbestos will be selectively collected and disposed of in a licensed landfill, as stipulated in the Materials Decree. Other ways of processing (from detoxification to recycling) are also currently being sought, which is part of the OVAM Recycling Hub project.  Regarding new materials:  Newly used materials will mainly be primary. There are currently no legal standards/obligations for reuse or the use of recyclates (recycled content) in building materials. In the framework of " Flanders Circular ", a partnership of governments, companies, civil society and knowledge community taking action together in the field of circular economy in Flanders, the most appropriate solutions are being sought (e.g., For certain technical standards that prevent the use of recyclates). The RRF measures will always consider the evolutions in this field, to ensure maximum durability, reparability, upgradeability, reusability, and recyclability of used products.  The efforts to stimulate circular building in (re)construction/(re)conversion projects will be strengthened in Flanders soon. A new policy program is currently being prepared (2022-2030) to use circular materials and techniques as well as to sensitize and stimulate all relevant partners in the construction chain.  For the renovation projects to be carried out, the Flemish Energy Company (VEB) will in the first instance sensitize both the client (public entity) and the contractor of the project on circular use of materials. This as well for materials to be removed and for the choice of new materials so that they can be used as much as possible in the circular construction market in Flanders.  After the roll-out of the new policy program on circular construction, VEB will ensure that the framework contracts of its central purchasing unit (PDU) include the set criteria as an implementation condition. The project here described will be ordered through one or more of these framework agreements of the VEB. |

Sub-measure 2: Reduction of energy demand through building envelope interventions, in particular post-insulation of facades, insulation of roofs and renewal of exterior joinery

Tableau 25 Simplified approach – measure I-1.61/2 - Renovatie en energiemaatregelen AWV

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 026bis in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100%. |
| Climate change adaptation |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation article 11.1.a, as it is part of the climate reflex described in the Flemish Adaptation Plan.  These renovation works will have a positive impact on the thermal comfort (and thermal resistance to heatwaves) of the buildings and will not negatively affect the goals of the governmental goals of climate adaptation. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. It does not concern water systems.  . |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this environmental objective, pursuant to the Taxonomy Regulation article 14.1. a. It reduces the use of fossil fuels for space heating and thus the release of air pollutants. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 26 Substantive assessment – measure I-1.61/2 – Renovatie en energiemaatregelen AWV

| Env. Objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Regarding disposed materials:  When disposing of materials, sorting at the source, on site or by post-sorting is encouraged by the Public Flemish Waste Agency (OVAM). Materials mentioned in the list of art.4.3.2 of Vlarema (Flemish Materials Decree), must be kept separately if they arise separately. For example, when rubble and glass are released separately during demolition, they may not be combined because the two fractions cannot be separated afterwards. For large construction sites (art. 4.3.3 Vlarema), the preparation of a demolition succession plan is required. After parliamentary approval of Vlarema 8, further demolition follow-up will also become mandatory for these yards from 1.07.2022.  A 2013 study by OVAM shows that about 90% of construction and demolition waste is recycled today, which mainly refers to the stony fraction (i.e., mainly rubble that is put back on the market as recycled aggregates, to be used e.g., for road foundations and parking lots). The non-stony fraction consists, for example, of plastics, which are usually eventually incinerated with energy recovery. Steel, for example, will certainly recover, since it is a stream with positive market value.  As for removed asbestos in energy renovation projects, the removed asbestos will be selectively collected and disposed of in a licensed landfill, as stipulated in the Materials Decree. Other ways of processing (from detoxification to recycling) are also currently being sought, which is part of the OVAM Recycling Hub project.  Regarding new materials:  Newly used materials will mainly be primary. There are currently no legal standards/obligations for reuse or the use of recyclates (recycled content) in building materials. In the framework of " Flanders Circular ", a partnership of governments, companies, civil society and knowledge community taking action together in the field of circular economy in Flanders, the most appropriate solutions are being sought (e.g., For certain technical standards that prevent the use of recyclates). The RRF measures will always consider the evolutions in this field, to ensure maximum durability, reparability, upgradeability, reusability and recyclability of used products.  The efforts to stimulate circular building in (re)construction/(re)conversion projects will be strengthened in Flanders in the near future. A new policy program is currently being prepared (2022-2030) to use circular materials and techniques as well as to sensitize and stimulate all relevant partners in the construction chain.  For the renovation projects to be carried out, the Flemish Energy Company (VEB) will in the first instance sensitize both the client (public entity) and the contractor of the project on circular use of materials. This as well for materials to be removed as for the choice of new materials so that they can be used as much as possible in the circular construction market in Flanders.  After the roll-out of the new policy program on circular construction, VEB will ensure that the framework contracts of its central purchasing unit (PDU) include the set criteria as an implementation condition. The project described here will be ordered through one or more of these framework agreements of the VEB. |

Sub-measure 3: Generation of renewable energy by means of solar panels on the roofs of the buildings and canopies

Tableau 27 Simplified approach – measure I-1.61/3 - Renovatie en energiemaatregelen AWV

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is eligible for the intervention field 029 in the Annex to the RRF Regulation with a climate change coefficient of 100 %. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective.  To track the effect of the measure, the production, self-consumption, and consumption of gray energy will be carefully monitored for each complex where panels are installed. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns the installation of solar panels on rooftops. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It does not concern water systems. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It decreases the reliance on fossil fuels. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 28 Substantive assessment – measure I-1.61/3 - Renovatie en energiemaatregelen AWV

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Newly used materials will mainly be primary. There are currently no legal standards/obligations for reuse or the use of recyclates (recycled content) in building materials. In the framework of " Flanders Circular ", a partnership of governments, companies, civil society and knowledge community taking action together in the field of circular economy in Flanders, the most appropriate solutions are being sought (e.g., For certain technical standards that prevent the use of recyclates). The RRF measures will always consider the evolutions in this field, to ensure maximum durability, reparability, upgradeability, reusability and recyclability of used products.  The efforts to stimulate circular building in (re)construction/(re)conversion projects will be strengthened in Flanders in the near future. A new policy program is currently being prepared (2022-2030) to use circular materials and techniques as well as to sensitize and stimulate all relevant partners in the construction chain.  For the renovation projects to be carried out, the Flemish Energy Company (VEB) will in the first instance sensitize both the client (public entity) and the contractor of the project on circular use of materials. This as well for materials to be removed as for the choice of new materials so that they can be used as much as possible in the circular construction market in Flanders.  After the roll-out of the new policy program on circular construction, VEB will ensure that the framework contracts of its central purchasing unit (PDU) include the set criteria as an implementation condition. The project here described will be ordered through one or more of these framework agreements of the VEB. |

Sub-measure 4: Reduction of the energy demand by renewing the lighting installation (= relighting), replacing the existing luminaires with LED luminaires in the offices and in the hangars and the outdoor lighting related to the Roads and Traffic Agency (Flemish administration) winter service operation

Tableau 29 Simplified approach – measure I-1.61/4 - Renovatie en energiemaatregelen AWV

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 026bis in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100%. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns a change in lighting systems. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It does not concern water systems. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure has no or an insignificant foreseeable impact on this objective related to the direct and primary indirect effects of the measure across its life cycle. Changes in more efficient electric lighting systems do not significantly impact air pollution. The relighting will result in the omission of fluorescence technology-based lamps (TL). These lamps still use small amounts of mercury in their composition. The omission of fluorescence lamps reduces the risk of mercury entering the ecosystem when improperly disposed of. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on this environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas.  The relighting will result in the omission of fluorescence technology-based lamps (TL). These lamps still use small amounts of mercury in their composition. The omission of fluorescence lamps reduces the risk of mercury entering the ecosystem when improperly disposed of. |

Tableau 30 Substantive assessment – measure I-1.61/4 - Renovatie en energiemaatregelen AWV

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | The contract includes that the old luminaires (and lamps) must be processed in  accordance with the Flemish waste legislation (AEEA). Lamps for example must be transferred to a licensed processor, preferably a Recupel partner, who recycles as many parts as possible. Other materials need to be demolished in accordance with the Flemish OVAM-guidelines.  Concerning the products themselves, a lot of technical requirements are stated in the contract to make sure that the products are durable. E.g., Luminaires will be composed of aluminum housings and hardened safety glass light caps. No PVC or PC components are allowed and halogens in the cable systems will be banned.  The efforts to stimulate circular building in (re)construction/(re)conversion projects will be strengthened in Flanders in the near future. A new policy program is currently being prepared (2022-2030) to use circular materials and techniques as well as to sensitize and stimulate all relevant partners in the construction chain.  For the renovation projects to be carried out, the Flemish Energy Company (VEB) will in the first instance sensitize both the client (public entity) and the contractor of the project on circular use of materials. This as well for materials to be removed as for the choice of new materials so that they can be used as much as possible in the circular construction market in Flanders.  After the roll-out of the new policy program on circular construction, VEB will ensure that the framework contracts of its central purchasing unit (PDU) include the set criteria as an implementation condition. The project here described will be ordered through one or more of these framework agreements of the VEB. |

I-1.70 Energy import infrastructure FED

Tableau 31 Simplified approach – measure I-1.70 Emerging energy technologies

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation (article 10). It is aimed at (1) enabling the use of hydrogen as an alternative energy vector for hard-to-abate sectors, by increasing the supply of renewable hydrogen on the European market through imports, thus lowering GHG emissions (2) increasing the access to cheap renewable energy from the North Sea by developing electricity import technologies and infrastructures, thus contributing to the decarbonization of Belgian electricity production mix. In addition, the criteria to be used to make a final choice of projects will take into account an evaluation of the Do No Significant Harm principles. |
| Climate change adaptation | X |  |  |
| Water & marine resources | X |  |  |
| Circular economy | X |  |  |
| Pollution prevention and control | X |  |  |
| Biodiversity and ecosystems | X |  |  |

Tableau 32 Substantive assessment – measure I-1.70 Emerging energy technologies

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Climate change adaptation | X | |  | | --- | | Projects will be selected through a call that requires all activities to be compliant with the relevant environmental legislation (European/national/regional) and recommends the conduct of a climate risk assessment on the basis of which adaptation solutions should be included in the activities to reduce the most important physical climate risks material to these activities. Each project will be individually assessed regarding this Environmental objective and projects that do not comply with the DNSH principle will be excluded. Each project will be monitored on a regular basis, depending on the level of risks identified during the selection process. | |
| Water & marine resources | X | Projects will be selected through a call that will require that all activities are compliant with the relevant environmental legislation (European/national/regional). Each project will be individually assessed regarding this Environmental objective and projects that do not comply with the DNSH principle will be excluded. Environmental aspects will be investigated during permit procedures, when relevant, to minimize impacts on water & marine resources. Environmental impact assessments will be required in permit procedures according to the legislation in force in each region[[2]](#footnote-3) as per the EIA Directive and the Habitats Directive. Each project will be monitored on a regular basis, depending on the level of risks identified during the selection process. |
| Circular economy | X | Projects will be selected through a call that will require that all activities are compliant with the relevant environmental legislation (European/national/regional) The measure will require the operators carrying out the construction to ensure that at least 70 % (by weight) of the non-hazardous construction and demolition waste from the construction (excluding naturally occurring material defined in category 17 05 04 in the European List of Waste established by Commission Decision 2000/532/EC) generated on the construction site will be prepared for re-use, recycling and other material recovery, including backfilling operations using waste to substitute other materials, in accordance with the waste hierarchy and the EU Construction and Demolition Waste Management Protocol. The operators should limit waste generation during construction, in accordance with the EU Construction and Demolition Waste Management Protocol and taking into account best available techniques and facilitate re-use and high-quality recycling by selective removal of materials, using available sorting systems for construction waste. Each project will be individually assessed regarding this Environmental objective and projects that do not comply with the DNSH principle will be excluded. Environmental aspects will be investigated during these permit procedures, when relevant, to minimize impacts on circular economy. Environmental impact assessments will be required in permit procedures according to the legislation in force in each region[[3]](#footnote-4) as per the EIA Directive. Each project will be monitored on a regular basis, depending on the level of risks identified during the selection process. |
| Pollution prevention and control | X | Projects will be selected through a call that will require that all activities are compliant with the relevant environmental legislation (European/national/regional). Each project will be individually assessed regarding this Environmental objective and projects that do not comply with the DNSH principle will be excluded. Environmental aspects will be investigated during permit procedures, when relevant, to minimize impacts on pollution. Environmental impact assessments will be required in permit procedures according to the legislation in force in each region[[4]](#footnote-5) as per the EIA Directive. Each project will be monitored on a regular basis, depending on the level of risks identified during the selection process. |
| Biodiversity and ecosystems | X | Projects will be selected through a call that will require that all activities are compliant with the relevant environmental legislation (European/national/regional). Each project will be individually assessed regarding this Environmental objective and projects that do not comply with the DNSH principle will be excluded. Environmental aspects will be investigated during permit procedures, when relevant, to avoid minimize impacts on biodiversity and ecosystems. Environmental impact assessments will be required in permit procedures according to the legislation in force in each region[[5]](#footnote-6) as per the EIA Directive and the Habitats Directive. Each project will be monitored on a regular basis, depending on the level of risks identified during the selection process. |

DNSH specific condition: Hydrogen transport networks will be used 100% for transporting hydrogen.

I-1.71 Call for decarbonisation of industry - WAL

Tableau 33 Simplified approach – measure I-1.71 - Call for decarbonisation of industry

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | La mesure « contribue de manière substantielle » à cet objectif environnemental, conformément au règlement sur la taxinomie, article 10.1.b.  En effet, l’appel vise à contribuer à l’objectif suivant de REPower EU :  *(b)boosting energy efficiency in buildings and critical energy infrastructure, decarbonising industry, increasing the production and uptake of sustainable biomethane and of renewable or fossil-free hydrogen, and increasing the share and accelerating the deployment of renewable energy*  Il vise donc notamment à réduire les émissions de gaz à effet de serre. Une évaluation des pistes indicatives collectées au sein de WALENERGIE (établie sur une centaine de projets) montre que les pistes exclusivement en URE ou en renouvelable pourraient permettre une atténuation des émissions de l’ordre de 630kT de CO2 (réduction de 5,1% des émissions couvertes par l’ETS). Les pistes relatives à la capture de CO2 permettraient une économie additionnelle de 2.660kT de CO2 (21,58% des émissions couvertes par l’ETS).  About Biomass: it meets the criteria in RED II (Renewable Energy Directive II), notably the sustainability and GHG emission saving criteria set out in Articles 29-31 and the rules on food and feed crops set out in Article 26, and related implementing and delegated acts  In order to ensure that the measure complies with the ‘Do no significant harm’ principle under the Recovery and Resilience Facility as set out in the DNSH Technical Guidance (2021/C58/01), the eligibility criteria in upcoming calls shall exclude activities under the EU Emission Trading System (ETS) achieving projected greenhouse gas emissions that are not lower than the relevant benchmarks. Where the activity achieves projected greenhouse gas emissions that are not significantly lower, but still lower than the relevant benchmarks, an explanation of the reasons why this is not possible should be provided. Benchmarks established for free allocation for activities falling within the scope of the Emissions Trading System, as set out in the Commission Implementing Regulation (EU) 2021/447. |
| Climate change adaptation | X |  | L’activité soutenue par la mesure a une incidence prévisible négligeable sur cet objectif environnemental, compte tenu à la fois des effets directs et des principaux effets indirects tout au long du cycle de vie. L’appel n’a pas pour vocation à viser directement l’adaptation au changement climatique s’agissant d’une action axée directement sur le métier de l’industrie et non les solutions qu’elles pourraient apporter en termes d’adaptation. Le projet ne risque pas d’augmenter les incidences négatives du climat sur les entreprises, la population, la nature ou les biens. |
| Water & marine resources | X |  |  |
| Circular economy | X |  |  |
| Pollution prevention and control | X |  |  |
| Biodiversity and ecosystems | X |  |  |

Tableau 34 Substantive assessment – measure I-1.71 - Call for decarbonisation of industry

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Water & marine resources | X | Certains des projets auront un impact potentiel sur l’environnement en général et les ressources en eau particulièrement (soit parce qu’elles nécessiteront l’utilisation d’eau soit parce que l’impact sur les sols risquent d’être potentiellement important).  Tous les projets devront identifier le potentiel d’impact sur les sols, sous-sols et l’impact possible sur les ressources hydriques.  Les projets nécessitant une modification du permis d’environnement (exploitation) ou nécessitant un permis d’environnement (nouvelles installations) devront faire l’objet d’une évaluation ex-ante du SPW ARNE ou prouver, sur base de documents justificatifs ad-hoc, qu’aucun risque avéré n’est attendu ou que toutes les mesures d’atténuation de risque ont été prises en compte. |
| Circular economy | X | Même si, a priori, l’appel ne devrait proposer de projets d’investissement directement en lien avec l’économie circulaire, Wallonie-Entreprendre dispose de l’expertise nécessaire pour évaluer l’impact relatif des projets sur l’économie circulaire et la conformité des pistes éventuelles avec la stratégie « Circular Wallonie » (<https://economiecirculaire.wallonie.be/> ).  En ce qui concerne l’usage de bioressources ou des ressources « déchet/énergie », une attention particulière sera apportée sur le respect de l’« échelle de Lansink » dans le montage des projets. Dans tous les cas, les projets relatifs à la bioénergie en général devra faire l’objet d’une évaluation préalable par le Comité transversal de la biomasse (<https://energie.wallonie.be/fr/comite-transversal-de-la-biomasse.html?IDC=9630> ). Ainsi, les informations reprises dans les documents de déclaration « biomasse bois » ou « biométhanisation » devront pouvoir avoir été clairement identifiés afin de justifier la faisabilité du projet et la conformité de l’usage de la ressource.  L’incinération de déchets est exclue du scope de l’appel à projets. |
| Pollution prevention and control | X | A priori, non. Néanmoins, les projets nécessitant une modification du permis d’environnement (exploitation) ou nécessitant un permis d’environnement (nouvelles installations) devront faire l’objet d’une évaluation ex-ante du SPW ARNE ou prouver, sur base de documents justificatifs ad-hoc, qu’aucun risque avéré n’est attendu ou que toutes les mesures d’atténuation de risque ont été prises en compte.  A DNSH assessment will be mandatory for all projects. |
| Biodiversity and ecosystems | X | A priori, non. Néanmoins, les projets nécessitant une modification du permis d’environnement (exploitation) ou nécessitant un permis d’environnement (nouvelles installations) devront faire l’objet d’une évaluation ex-ante du SPW ARNE ou prouver, sur base de documents justificatifs ad-hoc, qu’aucun risque avéré n’est attendu ou que toutes les mesures d’atténuation de risque ont été prises en compte. |

I-1.75 Oproep klimaatmaatregelen in de landbouw - VLA

Tableau 35 Simplified approach – measure I-1.75 - Oproep klimaatmaatregelen in de landbouw

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 10.1.b.  De steunmaatregel vermindert het energieverbruik en verhoogt de energie-efficiëntie. De maatregel zal dus bijdragen aan de nationale jaarlijkse inspanning overeenkomstig van de richtlijn energie-efficiëntie (Richtlijn 2012/27/EU). |
| Climate change adaptation |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Deze maatregel doet geen afbreuk aan de klimaatadaptatie van de landbouwsector en alleen betreft met energiebesparende activiteiten. |
| Water & marine resources |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Deze maatregel alleen betreft met energiebesparende activiteiten. |
| Circular economy | X |  |  |
| Pollution prevention and control | X |  |  |
| Biodiversity and ecosystems |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Deze maatregel alleen betreft met energiebesparende activiteiten. |

Tableau 36 Substantive assessment – measure I-1.75 - Oproep klimaatmaatregelen in de landbouw

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Deze maatregel verplicht de bedrijven die de gebouwen renoveren, ervoor te zorgen dat ten minste 70 % (in termen van gewicht) van het niet-gevaarlijke, op de bouwwerf geproduceerde bouw- en sloopafval (met uitzondering van in de natuur voorkomend materiaal zoals bedoeld in categorie 17 05 04 van de bij Beschikking 2000/532/EG vastgestelde Europese afvalstoffenlijst) wordt voorbereid voor hergebruik, recycling en andere vormen van materiaalterugwinning, met inbegrip van opvulling, waarbij afval wordt gebruikt als vervanging van andere materialen, overeenkomstig de afvalhiërarchie en het EU-protocol inzake bouw- en sloopafvalbeheer.  Met name zullen bedrijven de productie van afval tijdens de bouw en sloop beperken, in overeenstemming met het EU-protocol inzake bouw- en sloopafvalbeheer. |
| Pollution prevention and control | X | De verwachting is dat de energiebesparende maatregelen die met deze maatregel worden gefinancierd geen verandering veroorzaken in de uitstoot van emissies die bij landbouwbedrijven tot de normale gang van zaken behoren.  Alle in aanmerking komende bedrijven voldoen aan de geldende regelgeving inzake aanvaardbare emissies conform de NEC richtlijn (Richtlijn EU 2016/2284).  Emissies gerelateerd aan verwarming van landbouwbedrijfsgebouwen zullen teruggedrongen worden, andere emissies die gepaard gaan met project voldoen aan alle Europese richtlijnen. |

I-1.81 Protecting energy supply infrastructure - FED

Tableau 37 Simplified approach – measure I-1.81 - Protecting energy supply infrastructure

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is the development of an IT-platform. Therefore, by design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The acquisition of electronic equipment will be subject to special attention when possible to be in line with EU Green Public Procurement criteria. |
| Climate change adaptation |  | X | The measure is the development of an IT-platform. Therefore, by design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Water & marine resources |  | X | The measure is the development of an IT-platform. Therefore, by design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Circular economy |  | X | The measure is the development of an IT-platform. Therefore, by design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The acquisition of electronic equipment will be subject to special attention when possible to be in line with EU Green Public Procurement criteria. |
| Pollution prevention and control |  | X | The measure is the development of an IT-platform. Therefore, by design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Biodiversity and ecosystems |  | X | The measure is the development of an IT-platform. Therefore, by design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |

I-1.82 Floating solar - FED

Tableau 39 Simplified approach – measure I-1.82 - Floating solar

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is eligible for the intervention field 029 in the Annex to the RRF Regulation with a climate change coefficient of 100 %. |
| Climate change adaptation |  | x | The measure has no or an insignificant foreseeable negative impact on the adaptation objective related to the direct and primary indirect effects of the investment across its life cycle. It aims at the development of a new source of renewable electricity. |
| Water & marine resources | x |  |  |
| Circular economy | x |  |  |
| Pollution prevention and control |  | x | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation. It aims at reducing the use of fossil fuels and thus the pollution they generate (art 14, 1, a). |
| Biodiversity and ecosystems | x |  |  |

Tableau 40 Substantive assessment – measure I-1.82 - Floating solar

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Water & marine resources | x | Environmental aspects will be investigated within the environmental studies. The impact on water and marine resources will be minimized by using the right materials and methods. |
| Circular economy | x | One of the objectives of the study of the materials is precisely to study the behaviour of certain materials in the conditions in which these installations will operate. In this way, the choice of which materials to use to minimize the environmental effects can be optimized. Further, all legal requirements regarding the recycling of the used materials will be observed. |
| Biodiversity and ecosystems | x | Environmental aspects will be investigated within the environmental studies. The impact on biodiversity and ecosystems will be minimized by using the right materials and methods. |

I-1.83 Optimisation de la distribution d'énergie - WAL

Tableau 41 Simplified approach – measure I-1.83 - Optimisation de la distribution d'énergie

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation | X |  |  |
| Climate change adaptation | X |  |  |
| Water & marine resources | X |  |  |
| Circular economy | X |  |  |
| Pollution prevention and control | X |  |  |
| Biodiversity and ecosystems | X |  |  |

Tableau 42 Substantive assessment – measure I-1.83 - Optimisation de la distribution d'énergie

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Climate change mitigation | X | (i) L’acquisition de matériel électronique fera l’objet d’une attention particulière lorsque cela sera possible pour être en ligne avec les critères du UE Green Public Procurement (notamment la prise en compte de la consommation d’électricité et de la performance énergétique)  (ii) Autres types d’investissements dans le réseau : Les projets subventionnés seront soumis à une évaluation DNSH, afin de démontrer qu'ils n'entraînent pas de dommages significatifs pour l'environnement. La législation nationale et européenne applicable sera respectée. |
| Climate change adaptation | X | (i) L’acquisition de logiciels, de compteurs ou de capteurs n’a pas d’incidence négative prévisible sur cet objectif environnemental, compte tenu des effets directs et des principaux effets indirects sur l'ensemble du cycle de vie.  (ii) Autres types d’investissements dans le réseau : Les projets subventionnés seront soumis à une évaluation DNSH, afin de démontrer qu'ils n'entraînent pas de dommages significatifs pour l'environnement. La législation nationale et européenne applicable sera respectée. |
| Water & marine resources | X | (i) L’acquisition de logiciels, de compteurs ou de capteurs n’a pas d’incidence négative prévisible sur cet objectif environnemental, compte tenu des effets directs et des principaux effets indirects sur l'ensemble du cycle de vie.  (ii) Autres types d’investissements dans le réseau : Les projets subventionnés seront soumis à une évaluation DNSH, afin de démontrer qu'ils n'entraînent pas de dommages significatifs pour l'environnement. La législation nationale et européenne applicable sera respectée. |
| Circular economy | X | (i) L’acquisition de matériel électronique fera l’objet d’une attention particulière lorsque cela est possible pour être en ligne avec les critères du UE Green Public Procurement (notamment prise en compte de la réparabilité).  (ii) Autres types d’investissements dans le réseau : Les projets subventionnés seront soumis à une évaluation DNSH, afin de démontrer qu'ils n'entraînent pas de dommages significatifs pour l'environnement. La législation nationale et européenne applicable sera respectée. |
| Pollution prevention and control | X | (i) L’acquisition de logiciels, de compteurs ou de capteurs n’a pas d’incidence négative prévisible sur cet objectif environnemental, compte tenu des effets directs et des principaux effets indirects sur l'ensemble du cycle de vie.  (ii) Autres types d’investissements dans le réseau : Les projets subventionnés seront soumis à une évaluation DNSH, afin de démontrer qu'ils n'entraînent pas de dommages significatifs pour l'environnement. La législation nationale et européenne applicable sera respectée. |
| Biodiversity and ecosystems | X | (i) L’acquisition de logiciels, de compteurs ou de capteurs n’a pas d’incidence négative prévisible sur cet objectif environnemental, compte tenu des effets directs et des principaux effets indirects sur l'ensemble du cycle de vie.  (ii) Autres types d’investissements dans le réseau : Les projets subventionnés seront soumis à une évaluation DNSH, afin de démontrer qu'ils n'entraînent pas de dommages significatifs pour l'environnement. La législation nationale et européenne applicable sera respectée. |

I-1.84 Oproep innovatieve productie-initiatieven hernieuwbare energie (VLAIO) - VLA

Tableau 43 Simplified approach – measure I-1.84 - Oproep innovatieve productie-initiatieven hernieuwbare energie (VLAIO)

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation | X |  |  |
| Climate change adaptation | X |  |  |
| Water & marine resources | X |  |  |
| Circular economy | X |  |  |
| Pollution prevention and control | X |  |  |
| Biodiversity and ecosystems | X |  |  |

Tableau 44 Substantive assessment – measure I-1.84 - Oproep innovatieve productie-initiatieven hernieuwbare energie (VLAIO)

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Climate change mitigation | X | **a) Voor wat betreft investeringen in walstroomvoorzieningen:**  Deze submaatregel draagt substantieel bij aan deze doelstelling aangezien de investeringen betrekking hebben op de vervanging van het opwekken van elektriciteit op aangemeerde schepen met dieselgeneratoren door elektriciteit komende van het elektriciteitsnet (walstroom). Dit draagt substantieel bij aan de vermindering van uitstoot van broeikasgassen, door dieselmotoren op schepen niet te laten draaien terwijl het schip verbonden is met walstroom. Zelfs in het geval van grijze elektriciteit is er sprake van een substantiële verbetering van de milieu en energieprestatie bij het toepassen van walstroom. Zo is de emissie van fijn stof, NOx, SO2 en CO2 per eenheid elektriciteit aanzienlijk lager. Dit komt deels door het hogere rendement van de elektriciteitscentrales. Daar waar motoren een elektrisch rendement hebben van 30%, ligt dit rendement bij centrales tussen de 50 en 60%. De totale besparing NOx, SO2 en CO2 die gerealiseerd zal worden met deze maatregel is afhankelijk van de selectie van de specifieke projecten.  Deze elektrificatie van haveninfrastructuur gaat gepaard met een toename van de productiecapaciteit van duurzame energie op nationaal niveau. In het Vlaams Energie en klimaatplan (VR 2023 1205 DOC.0518/2TER) p. 176 en volgende worden de verwachte groeitrajecten voor groene stroomproductie beschreven. Onderstaande tabel toont een duidelijke verwachte toename van groene stroomproductie tegen 2030:    Het VEKP kan geconsulteerd worden op: <https://assets.vlaanderen.be/image/upload/v1683894247/Vlaams_Energie-_en_Klimaatplan_actualisatie_12_mei_2023_tpletf.pdf>  Projecten zullen onder andere beoordeeld worden op potentiële CO2 reductie per jaar op basis van bezettingsgraad/liguren per jaar. Hierdoor wordt CO2-reductie betrokken bij de selectie.  **b) Voor wat betreft investeringen in O&O met betrekking tot zonne-energie:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. De O&O-activiteiten zelf hebben geen impact op de uitstoot van broeikasgassen, de resultaten van de O&O-projecten en daarop volgende investeringen kunnen uiteraard wel een positieve impact hebben op de uitstoot van broeikasgassen door efficiëntieverhogingen van zonnepanelen, verbeteringen op het vlak van productiekost, nieuwe toepassingen op het vlak van het opwekken van zonne-energie,… |
| Climate change adaptation | X | **a) Voor wat betreft investeringen in walstroomvoorzieningen:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Alleen O&O activiteiten zijn inbegrepen.  **b) Voor wat betreft investeringen in O&O met betrekking tot zonne-energie:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop Alleen O&O activiteiten zijn inbegrepen. |
| Water & marine resources | X | **a) Voor wat betreft investeringen in walstroomvoorzieningen:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Walstroominstallaties maken geen gebruik van water en zorgen zelfs voor een vermindering van verontreiniging van water  **b) Voor wat betreft investeringen in O&O met betrekking tot zonne-energie:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Er is geen impact op de watertoestand bij O&O-activiteiten gericht op investeringen in de waardenketen mbt zonne-energie. |
| Circular economy | X | **a) Voor wat betreft investeringen in walstroomvoorzieningen:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Er worden geen substantiële afvalstromen geproduceerd bij de investeringen in walstroominstallaties.  Niettemin zal in de handleiding voor de maatregel onderstaande verplichting opgenomen worden:  *“De uitvoerders van de bouwwerkzaamheden moeten ervoor zorgen dat ten minste 70 % (in gewicht) van het ongevaarlijke bouw- en sloopafval van de bouw (met uitzondering van in de natuur voorkomend materiaal dat wordt omschreven in categorie 17 05 04 van de Europese lijst van afvalstoffen die is vastgesteld bij Beschikking 2000/532/EG van de Commissie) dat op de bouwplaats ontstaat, wordt klaargemaakt voor hergebruik, recycling en andere nuttige toepassingen van materialen, met inbegrip van opvulactiviteiten waarbij afval wordt gebruikt ter vervanging van andere materialen, overeenkomstig de afvalhiërarchie en het EU-protocol inzake het beheer van bouw- en sloopafval.*  *De exploitanten moeten de afvalproductie tijdens de bouw beperken, in overeenstemming met het EU-protocol inzake het beheer van bouw- en sloopafval en rekening houdend met de beste beschikbare technieken, en hergebruik en recycling van hoge kwaliteit vergemakkelijken door materialen selectief te verwijderen met behulp van beschikbare sorteersystemen voor bouwafval.”*  Het is niet de verwachting dat walstroominstallaties gebruik zullen maken van batterijen. Niettemin zal in de voorwaarden voor de steun meegegeven worden dat projectuitvoerders verplicht zijn de Nationale en Europese milieuregelgeving te respecteren, inclusief de bepalingen die betrekking hebben op gebruik en recyclage van batterijen.  **b) Voor wat betreft investeringen in O&O met betrekking tot zonne-energie:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Er worden geen substantiële afvalstromen geproduceerd bij O&O-activiteiten gericht op investeringen in de waardenketen mbt zonne-energie. |
| Pollution prevention and control | X | **a) Voor wat betreft investeringen in walstroomvoorzieningen:**  Deze submaatregel draagt substantieel bij aan deze doelstelling. Het gebruik van walstroom in plaats van dieselmotoren te laten draaien terwijl een schip aangemeerd is zal leiden tot een reductie van verontreinigende stoffen in de lucht in de buurt van de haven. Bij het gebruik van walstroom is de emissie van fijn stof, NOx, SO2 en CO2 per eenheid elektriciteit aanzienlijk lager dan bij het gebruik van dieselmotoren. De stoffen die dieselmotoren in de lucht uitstoten kunnen bovendien in een later stadium de bodem of het water verontreinigen. Door walstroom te gebruiken wordt dit eveneens gemitigeerd.  **b) Voor wat betreft investeringen in O&O met betrekking tot zonne-energie:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Er is geen verwachte impact van de O&O-activiteiten op emissies van  verontreinigende stoffen in lucht, water of  bodem. |
| Biodiversity and ecosystems | X | **a) Voor wat betreft investeringen in walstroomvoorzieningen:**  Deze submaatregel draagt substantieel bij aan deze doelstelling met name door een vermindering van de uitstoot van fijn stof, NOx, SO2 en CO2. De verminderde uitstoot door minder dieselmotoren te laten draaien zal een positief effect hebben op natuurlijke ecosystemen in de buurt van havens.  Gezondheid van ecosystemen wordt bovendien op ingezet in de selectieprocedure: het aantal hectare Natura2000-gebieden in een straal van 25km rondom de walstroomvoorziening is een selectiecriterium. Hiermee wordt de bescherming van natuurgebieden in achting genomen.  **b) Voor wat betreft investeringen in O&O met betrekking tot zonne-energie:**  Deze submaatregel heeft geen of weinig voorzienbare negatieve impact op de milieudoelstelling verwant aan de directe en primaire indirecte effecten van het project doorheen zijn levensloop. Er is geen verwachte impact van de O&O-activiteiten op de bio-diversiteit en ecosystemen. De O&O-activiteiten zullen plaats vinden in onderzoeksinstellingen of bedrijven. |

I-1.85 Removing barriers for deployment of renewables – FED

Tableau 45 Simplified approach – measure I-1.85 - Removing barriers for deployment of renewables

|  | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The project ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation (art 16). It enables activities to replace fossil fuel energy generation by renewable energy generation. A particular attention will be paid to EU Green Public Procurement criteria when purchasing equipment and technical criteria related to energy efficiency will be included in the tender whenever possible. |
| Climate change adaptation |  | X | By design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It is a tender for surveillance technologies. |
| Water & marine resources |  | X | By design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It is a tender for surveillance technologies. The measure does not cover water fittings, water appliances or other water related infrastructure. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The project ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation (art 16). It enables activities to replace fossil fuel energy generation by non-polluting renewable energy generation. |
| Biodiversity and ecosystems |  | X | By design, the measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It is a tender for surveillance technologies. |

Tableau 46 Substantive assessment – measure I-1.85 - Removing barriers for deployment of renewables

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | a) Installation of new surveillance technologies: A particular attention will be paid to EU Green Public Procurement criteria when purchasing equipment and technical criteria related to circular economy (e.g reparability) will be included in the tender whenever possible.  b) Decommissioning of old surveillance technologies:  The measure complies with the principles of the waste hierarchy. The possibility to donate the radars to a third party for reuse is currently being investigated. |

R-1.03/I-1.52 Régime amélioré de subventions énergétiques - DG

Tableau 47 Simplified approach – measure R-1.03 - Régime amélioré de subventions énergétiques

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation. It improves the energy efficiency of the building stock (art 10.1. b). This measure does not cover any subsidy for gas condensing boilers. |
| Climate change adaptation | X |  |  |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The measure does not cover water fittings, water appliances or other water related infrastructure. The project will not deal with water systems. Rainwater management must abide to European, régional and local environmental regulations. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation. It reduces the use of fossil fuels for space heating and thus the release of air pollutants (art 14.1.a). |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 48 Substantive assessment – measure R-1.03 - Régime amélioré de subventions énergétiques

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Climate change adaptation | X | Les nouvelles règles de subvention énergétiques seront soumises à une évaluation DNSH afin de montrer qu’elle ne cause pas de préjudice important à l’environnement.  Les risques des inconvénients provenant du changement climatique seront pris en compte avec la réalisation du projet. Par exemple :  Le soutien pour des protections de soleil à des fenêtres où c’est opportun pourra être retenu comme critère de prime;  Prévoir un niveau d’isolation supérieur pour faire face aux périodes de froid est l’objectif principal de ce projet. Par le fait que la Communauté va augmenter le montant des primes pour les travaux d’isolation, des matériaux d’isolation plus performants pourront être utilisées sans causer des frais supplémentaires pour les demandeurs. |
| Circular economy | X | Les nouvelles règles de subvention pour énergétique seront soumis à une évaluation DNSH afin de montrer qu’elle ne cause pas de préjudice important à l’environnement.  Le projet d’investissement sera conforme aux législations européennes, régionales, voir locales en matière de réduction de la pollution.  La mesure respectera également la stratégie régionale voire locale en matière d'économie circulaire et s’orientera aux principes du Green Public Procurement.  Le système de primes pour les rénovations énergétiques des bâtiments mettra en place des primes pour les personnes particulières pour soutenir des travaux exécutés exclusivement par des entrepreneurs reconnus. Ces entreprises sont obligées à délivrer leurs déchets dans les circuits reconnus et contrôlés.  Afin de promouvoir l’utilisation des matériaux d’isolation d’origine durable, une subvention supplémentaire sera prévue pour ces matériaux. |

R-1.50 COBRACE - RBC

Tableau 49 Simplified approach – measure R-1.50 - COBRACE

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation. It improves the energy efficiency of the building stock (art 10, 1. b).  This measure does not cover any subsidy for gas condensing boilers. |
| Climate change adaptation | X |  |  |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle.    Les activités soutenues par la mesure ont un impact prévisible insignifiant sur cet objectif environnemental, compte tenu des effets directs et indirects primaires sur l'ensemble du cycle de vie. Aucun risque de dégradation de l'environnement lié à la préservation de la qualité de l'eau et au stress hydrique n'est identifié, étant donné qu'aucune robinetterie ou appareil consommateur d'eau n'est installé.  Néanmoins, Le Règlement Régional d’Urbanisme (RRU) (arrêté du Gouvernement de la Région de Bruxelles-Capitale du 21 novembre 2006) impose le placement d’une citerne de récupération d’eau de pluie pour toute nouvelle construction et rénovation lourde. Cette citerne doit avoir les dimensions minimales de 33 litres par m² de surface de toitures en projection horizontale (article 16 du Titre I). Ce RRU impose également que les toitures plates non accessibles de plus de 100 m² soient aménagées en toitures verdurisées (article 13 du Titre I). Les primes régionales à la rénovation proposent une prime pour l’installation de citernes d’eau de pluie, ainsi qu’une prime pour la mise en œuvre de toitures stockantes en eau. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation. It reduces the use of fossil fuels for space heating and thus the release of air pollutants (art 14, 1, a). |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. It only concerns existing buildings and will thus not affect protected areas. |

Tableau 50 Substantive assessment – measure R-1.50 - COBRACE

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Climate change adaptation | X | Les grands axes de la politique régionale d’adaptation sont définis dans le plan intégré Air-Climat-Énergie. Certaines mesures d’adaptation figurent également dans les projets de plan de gestion de l’eau (y compris le plan de gestion des risques d’inondation) et le plan nature. Parmi les mesures d’adaptation phares figure la rénovation énergétique du bâti. L’adaptation aux changements climatiques est dès lors devenue un point d’attention dans le cadre de tout projet de rénovation important, au regard de l’augmentation de la durée et de la fréquence des vagues de chaleur. Or, une bonne isolation thermique génère un risque de surchauffe  La mise en place d’une bonne inertie thermique fait d’ores et déjà l’objet de recommandations dans le Guide Bâtiment durable, -outil destiné aux maîtres d’ouvrage qui rassemble les conseils, avis, supports relatifs au bâtiment durable. Divers dispositifs sont ainsi mis en avant pour lutter contre la surchauffe tout en limitant l’impact sur les consommations énergétiques : protections solaires, diminution des charges internes, refroidissement passif (free cooling, puits canadiens,), ajout d’éléments architecturaux de nature à créer des ombrages, diminution du vecteur d’ensoleillement des vitrages.  Les primes « énergie » régionales intègrent le confort thermique en soutenant l’installation de ventilations mécaniques performantes et contrôlées. De plus, elles contribuent à l’atténuation en proposant une prime pour la végétalisation des toitures isolées. |
| Circular economy | X | Dans le cadre de la transposition dans l’ordonnancement juridique de la Région de Bruxelles-Capitale des directives (UE) 2018/849, 2018/850 et 2018/851 (paquet déchets), le Gouvernement a pris des mesures pour encourager la démolition sélective afin de permettre le retrait et la manipulation en toute sécurité des substances dangereuses. La nouvelle ordonnance modifiant l’Ordonnance du 14 juin 2012 relative aux déchets prévoit que la préparation en vue du réemploi, le recyclage et les autres formules de valorisation de matière, y compris les opérations de remblayage qui utilisent des déchets au lieu d’autres matériaux, des déchets non dangereux de construction et de démolition, à l’exclusion des matériaux géologiques naturels définis dans la catégorie 17 05 04 de la liste de déchets visée à l’article 10, doivent atteindre un minimum de 70 % en poids. Au titre de l’ordonnance, le Gouvernement utilisera des instruments économiques, des critères d'attribution de marchés tels que l'insertion, dans les cahiers de charges de l'administration, des organismes d'intérêt public de la Région de Bruxelles-Capitale et des administrations locales, de dispositions stimulant le réemploi de composants, l'utilisation de sous-produits ou de substances issues du recyclage ou d'autres formes de valorisation.  L’Arrêté modifiant l’Arrêté du Gouvernement de la Région de Bruxelles-Capitale du 18 avril 2002 concernant la mise en décharge des déchets prévoit par ailleurs l’exclusion de la mise en décharge de tout déchet susceptible d’être recyclé ou valorisé.  Les dispositions pertinentes de ce nouveau cadre légal seront intégrées au sein des règlements et termes de référence applicables aux bénéficiaires de primes. L’économie circulaire est d’ailleurs déjà favorisée par plusieurs appels à projets dans le domaine de la construction depuis plusieurs années (AP Be circular, AP Be exemplary et prochainement le Rénolab). Depuis 2021, une prime énergie permet par ailleurs de financer les études réalisées grâce à l’outil belge TOTEM, qui a pour objectif d’évaluer, de comparer et de réduire l’impact environnemental du bâtiment projeté tout au long de son cycle de vie, pour faire des choix conscients lors du processus de conception.  De manière plus générale, la politique bruxelloise en matière d’économie circulaire repose sur la mise en œuvre de la feuille de route des acteurs de la construction vers une économie circulaire publiée en 2019 dans le cadre du Programme Régional en Economie Circulaire qui donne les grands jalons du développement de l’économie circulaire dans le secteur de la construction à l’horizon 2040. Ces objectifs sont en cours d’intégration dans le cadre de la Stratégie de réduction des impacts environnementaux du bâti existant en Région de Bruxelles-Capitale aux horizons 2030-2050 à laquelle répondent les mesures ciblant la rénovation des bâtiments introduites dans le cadre du PRR. |

R-1.80 Reform of the State Council - FED

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | By design, as a reform pertaining to a judiciary mechanism, the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The reform will actually contribute to the energy transition as it aims to reduce the timeframe of appeals procedures against decisions pertaining to energy investments and renewable energy infrastructures, while maintaining legally incompressible time limits, as well as give priority to these cases. The applicable national and EU legislation will be complied with. |
| Climate change adaptation |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Water & marine resources |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Circular economy |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Pollution prevention and control |  | X | By design, the measure has an insignificant foreseeable impact on this  environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Biodiversity and ecosystems |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |

R-1.86 Reform towards the mandatory installation of solar panels on building rooftops - VLA

Tableau 51 Simplified approach – measure I-1.86 - Reform towards the mandatory installation of solar panels on building rooftops

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | De maatregel komt in aanmerking voor het interventiegebied 029 in de bijlage bij RRF-verordening met een klimaatveranderingscoëfficiënt van 100 %. Deze maatregel levert een significante bijdrage aan de vermindering van fossiele emissies (meer hernieuwbare energie). Het doel van de maatregel en de aard van het steunverleningsgebied steunen de doelstelling klimaatmitigatie direct. |
| Climate change adaptation |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Solar panels on rooftops do not change the capacity of the building to face climate risks. |
| Water & marine resources |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. De activiteit is niet schadelijk voor de goede toestand of het goed ecologisch potentieel van waterlichamen, of voor de goede milieutoestand van mariene wateren. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | De maatregel “draagt substantieel bij” aan deze milieudoelstelling, overeenkomstig de taxonomieverordening, artikel 14.1.a. De activiteit leidt niet tot een toename van emissies van verontreinigende stoffen in lucht, water of bodem in België. Integendeel, het installeren van zonnepanelen kan helpen om het gebruik van fossiele brandstoffen en dus ook de uitstoot van fijnstof te verminderen. |
| Biodiversity and ecosystems |  | X | De activiteit die met de maatregel wordt gesteund, heeft een onbeduidend voorzienbaar effect op deze milieudoelstelling, rekening houdende met zowel de directe als de primaire indirecte effecten ervan gedurende de levenscyclus. Er is geen negatieve impact te verwachten op de goede staat en de veerkracht van ecosystemen, of instandhouding van habitats en soorten. |

Tableau 52 Substantive assessment – measure I-1.86 - Reform towards the mandatory installation of solar panels on building rooftops

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Het project heeft tot doel de installatie van zonnepanelen op daken van bedrijven van grote elektriciteitsafnemers en publieke gebouwen te versnellen. De gemiddelde levensduur van een zonnepaneel bedraagt 20-30 jaar waarna dit dient vervangen te worden. Nadat ze hun maximale gebruiksduur bereikt hebben, worden zonnepanelen ingezameld en worden materialen hergebruikt.  In 2012 is de AEEA-Richtlijn 2012/19/EU in werking getreden. Hierin is expliciet opgenomen dat afgedankte zonnepanelen tot de scope van AEEA behoren. Bijgevolg is de aanvaardingsplicht voor afgedankte fotovoltaïsche zonnepanelen van kracht. De aanvaardingsplicht betekent dat een eindverkoper verplicht is om de afgedankte fotovoltaïsche zonnepanelen van een consument terug te nemen.  In 2014 werd de AEEA-Richtlijn in Vlaanderen omgezet in het VLAREMA. Zonnepanelen worden ingedeeld als huishoudelijke AEEA. Onderhandelingen met de sector leidden tot de oprichting van beheersorganisme PV Cycle Belgium VZW. PV Cycle kan beschouwd worden als Recupel (het beheersorganisme voor AEEA) maar dan voor zonnepanelen. De eerste milieubeleidsovereenkomst liep af in 2021, momenteel is er samen met de sector een ondertekende aanvaardingsplichtconvenant (2021-2029) van kracht.  Sinds 1 juni 2016 geldt op nieuw geplaatste zonnepanelen een milieubijdrage, die momenteel 2€/paneel bedraagt. Hiermee financiert PV Cycle de inzameling en verwerking van afgedankte zonnepanelen en legt ze een reserve aan. Particulieren en installateurs kunnen gratis met kleine hoeveelheden terecht bij een uitgebreid netwerk van inzamelpunten, grote hoeveelheden worden gratis opgehaald. Bij de plaatsing van nieuwe panelen worden de oude gratis meegenomen (excl kosten demontage). Panelen met Si-technologie worden verwerkt in België. PV Cycle is ook verantwoordelijk voor de sensibilisering. Volgens hun website wordt in België 93,5% van een binnengebracht zonnepaneel gerecycleerd.    Momenteel zitten we vooral nog met een plaatsingsmarkt en nog niet met een vervangmarkt. Gezien de lange levensduur worden nog maar weinig panelen afgedankt (ongeveer 700t per jaar). We verwachten dat dit het komende decennium zal stijgen, daarom de aanleg van de hogergenoemde reserve.    PV Cycle volgt onderzoek rond verwerking op (ze maken deel uit van de internationale organisatie PV Cycle asbl, opgericht in 2007) en voert zelf onderzoek naar een potentiële markt voor verantwoord hergebruik van afgedankte panelen. Meer informatie is terug te vinden op <https://pvcycle.be/> voor het Belgische systeem en <https://pvcycle.org>/ voor de internationale organisatie. |

R-1.87 Accélérateur de la transition énergétique - WAL

Tableau 53 Simplified approach – measure R-1.87 - Pax Eolienica II

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. The reform will contribute to accelerate the deployment of renewable energies. The applicable national and EU legislation will be complied with. |
| Climate change adaptation |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Water & marine resources |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Circular economy |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. The measure foresees an assessment of the availability of and, where feasible, uses equipment and components of high durability and recyclability and that are easy to dismantle and refurbish, in line with the Taxonomy Climate Delegated Act. |
| Pollution prevention and control |  | X | By design, the measure has an insignificant foreseeable impact on this environmental objective, considering both the direct and primary indirect effects across the life cycle. The reform as such will not have any impact and the applicable national and EU legislation will be complied with. |
| Biodiversity and ecosystems | X |  |  |

Tableau 54 Substantive assessment – measure R-1.87 - Pax Eolienica II

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Biodiversity and ecosystems | X | La révision du cadre de référence éolien et du cadre d’aménagement et d’obtention du permis pourraient avoir un impact négatif, compte tenu des effets directs et des principaux effets indirects sur l'ensemble du cycle de vie si aucune mesure n’était prise pour éviter, atténuer ou, à tout le moins, compenser ces impacts.  Toutefois, la réforme de la loi de la Conservation de la Loi de la Nature prévoit que des mesures suffisantes doivent être prises pour éviter et atténuer les impacts du projet sur la biodiversité et le cas échéant des mesures de compensation. En application des directives européennes, il convient que la compensation porte sur les espèces directement impactées. La loi sur la conservation de la nature telle qu’adoptée en première lecture par le Gouvernement Wallon prévoit une évaluation appropriée des incidences sur la biodiversité (EAI) sur des plans qui ont une incidence non négligeable sur l’environnement, ce qui devrait le cas des zones d’accélération des énergies renouvelables au sens de la RED IIbis en projet (RePower-EU). Cette évaluation appropriée des incidences fait partie de l’évaluation des incidences sur l’environnement dont elle constitue le volet « biodiversité protégée ».  Les évaluations des incidences devront tout au moins comporter les éléments suivants :  - l’identification et la localisation des enjeux biologiques (espèces ou habitats protégés ou menacés, sites Natura 2000) susceptibles d’être impactés par des projets d’implantation d’énergie renouvelable ;  - une analyse des impacts probables sur les habitats protégés, sur les espèces protégées et sur les sites Natura 2000 ;  - en cas de risque d’impact, l’identification des mesures d’évitement, d’atténuation et, en cas de risque d’atteinte résiduelle, des mesures de compensation appropriées permettant d’éviter et/ou de compenser les atteintes significatives aux enjeux identifiés |

* 1. Axis Mobile

I-3.17 STIB MIVB bus - RBC

Tableau 55 Simplified approach – measure I-3.17 Verdir la flotte de bus (STIB MIVB)

| Env. Objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is eligible for the intervention field 074 in the Annex to the RRF Regulation with a climate change coefficient of 100 % as it concerns zero emissions electric vehicles. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. Vehicles do not interact with the water systems. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation, article 14.1.a. It concerns the purchase of zero emission vehicles and thus prevents air pollution. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. The new vehicles will use existing road infrastructure. |

Tableau 56 Substantive assessment – measure I-3.17 - Verdir la flotte de bus (STIB MIVB)

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | La mesure risque-t-elle :  « *i) d’entraîner une augmentation notable de la production, de l’incinération ou de l’élimination de déchets, à l’exception de l’incinération de déchets dangereux non recyclables* » : non, dû aux procédures mises en place.  *« ou ii) d’entraîner des inefficacités significatives dans l’utilisation directe ou indirecte d’une ressource naturelle à n’importe quelle étape de son cycle de vie, qui ne sont pas réduites au minimum par des mesures adéquates » :* non, dû aux procédures mises en place.  *« ou iii) de causer un préjudice important et durable à l’environnement au regard de l’économie circulaire » :* non, aucun risque.  Il existe des mesures pour gérer les déchets tant au cours de la phase d’utilisation des bus électriques, de leur maintenance que lors de leur fin de vie.  Notamment, dans le processus de Procurement des bus électriques et dans le Cahier Spécial des Charges, deux exigences concernaient le recyclage :   * « Afin d’éviter de mélanger les matières et polymères marqués et les batteries, les principaux composants plastiques doivent être marqués afin de faciliter leur identification pour leur mise au rebut et leur recyclage en fin de vie du véhicule. Ce marquage doit suivre la norme ISO 11469 et les autres normes associées. » * « Les batteries doivent être marquées conformément à la directive 2006/66/CE relative aux batteries afin de faciliter l’identification en vue du recyclage. » * Le 1er candidat sélectionné à ce stade, soit Evobus, sélectionné pour le Cahier Spécial des Charges des bus électriques articulés, est conforme par rapport à ces deux exigences précitées.   La réutilisation et le recyclage sont donc prévus, dans le respect de la hiérarchie des déchets.  Les incidences propres à l’exploitation de bus électriques sont prises en compte et le régime n’encouragera pas une mise à la casse prématurée des bus et ou de composants des bus en état de fonctionnement.  En outre, la mesure s’accompagne d’une stratégie globale de gestion des déchets issus du Rolling Stock – Matériel Roulant, exploité par la STIB et favorisant d’abord la réparation, le ré-usage, l’utilisation pour d’autres activités et ou autres produits; sous une nouvelle forme et ou sous une forme recyclée.  A titre d’exemples, nous pouvons citer les initiatives suivantes :   * Bus ticket validator: please see the video explaining how we proceeded with their recycling: <https://youtu.be/8yBugBeDGV8> * Project Undercover: we reused the fabric of old bus seat cushions to build new office seats. * Deconstruction of the old office seats and delivery of new office seats * Use of the new seats in the STIB info center of the Metro Line 3: <https://metro3.be/fr/article/01-07-2020/visitez-notre-nouveau-point-info-m3>  1. The above recycling projects have been conducted with the circular economy partners Recy-K and L’Ouvroir: please see the full project details and article on <https://www.onsadapte.be/actualites/news/297> 2. Please discover also our recycling program “Upcycling”; providing “more” , with old material to be recycled : <https://stibstories.be/2021/01/08/upcycling/> |

I-3.18 Scaling-up fiscal incentives for charging point deployment – FED

This fiscal measure was revised to include bidirectional charging stations which allow better energy management (by using the vehicle’s batteries for electricity storage, bidirectional charging stations help to balance electricity demand and stabilize the grid and help to integrate more renewable energy in the electrical grid). It does not have an impact on the initial DNSH assessment, which was marginally updated to give more details.

Tableau 57 Simplified approach – measure R-3.18 - Scaling-up fiscal incentives for charging point deployment

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is tracked as supporting this objective with a coefficient of 100% (intervention field 077).  Installing charging infrastructure for electric vehicles will increase the electrification of transport. The charging stations, which will be installed in homes and businesses, must meet two criteria. The recharging stations must use green energy to charge the car (this can be proved through own production of green energy or through a 100% green electricity contract) and must be equipped with recharging management software. This will allow to match the charging to the highest point of green energy production and load on the electricity grid. The lock-in of energy from non-renewable sources is thereby avoided. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The charging stations are designed to function within the expected climate changes in Belgium. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The measure does not cover water fittings, water appliances or other water related infrastructure. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure contributes substantially to this objective, pursuant to the Taxonomy Regulation article 14.1.a: it prevents and reduces pollutant emissions. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable impact on this environmental objective, taking into account both the direct and primary indirect effects across the life cycle. The measure supports the diffusion of charging stations for electric vehicles and hence the shift to zero-emission transportation. |

Tableau 58 Substantive assessment – measure R-3.18 - Scaling-up fiscal incentives for charging point deployment

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | Research studies have conducted lifecycle assessments of charging stations for Electric vehicles. From a life cycle analysis point of view, the energy efficiency of a single charger is 1.36MJ/kWh and the emission factor is 94,06g CO2/kWh.  The charging points that are on the market today have an average primary lifetime of 12 years.  The charging points however are not end-of-life after this first usage. Under the 4 R’s (reduce, reuse, refurbish and recycle) the charging points can first be adapted to have a second life by replacing certain key parts, before having been recycled part by part.  To tailor this model, the charging stations have a modular eco-design. This allows the replacement of worn-out parts at different stages, without having to replace the entire structure to ensure modularity, longevity, and recyclability.  Charging infrastructure consists of 3 types of recyclable materials. First there are the electronics that ensure the distribution of the electricity to the car. These consist of rare materials and are recycled for their value at the end of their first life in the charging point. Second stream of materials is the steel construction that supports the electronics. Thirdly there is the casing that is made of polyvinyl chloride. A type of plastics that can be recycled.  All of these materials, and the charging infrastructure as a whole, are subject to the take-back obligation that is in place throughout Europe. In Belgium this is executed by Recupel.  Furthermore, current research is considering the potential of using end-of life car batteries for stationary applications, such as charging infrastructure. This approach is being developed by Volkswagen.  The oldest charging stations in Europe are about 8 years old and have thus not yet reached the end of their life. The circular process of this infrastructure will be worked out in the coming years. |

I-3.21 Depot and charging infrastructure for electric buses (STIB MIVB) - RBC

Tableau 59 Simplified approach – measure I-3.21 - Depot and charging infrastructure for electric buses (STIB MIVB)

| Env. objective | Yes | No | Justification if 'No' |
| --- | --- | --- | --- |
| Climate change mitigation |  | X | The measure is eligible for the intervention field 074 in the Annex to the RRF Regulation with a climate change coefficient of 100 % as it concerns infrastructure of electrical buses. The objective of the measure and the nature of the intervention field directly support the climate change mitigation objective. |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. Charging infrastructures are built on already built-up area. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure ‘contributes substantially’ to this objective, pursuant to the Taxonomy Regulation, article 14.1.a, as it concerns the infrastructure of electrical busses which will help significantly reduce pollutant emissions into air. |
| Biodiversity and ecosystems |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. Charging infrastructures are built on already built-up area. |

Tableau 60 Substantive assessment – measure I-3.21 - Depot and charging infrastructure for electric busses (STIB MIVB)

| Env. objective | No | Substantive justification |
| --- | --- | --- |
| Circular economy | X | La mesure risque-t-elle :   * « i) d’entraîner une augmentation notable de la production, de l’incinération ou de l’élimination de déchets, à l’exception de l’incinération de déchets dangereux non recyclables » : non, dû aux procédures mises en place. * « ou ii) d’entraîner des inefficacités significatives dans l’utilisation directe ou indirecte d’une ressource naturelle à n’importe quelle étape de son cycle de vie, qui ne sont pas réduites au minimum par des mesures adéquates » : non, aucun risque. * « ou iii) de causer un préjudice important et durable à l’environnement au regard de l’économie circulaire » : non, aucun risque.   Il existe des mesures pour gérer les déchets tant au cours de la phase de construction du ou des dépôts, que lors de l’utilisation de celui-ci ou de ceux-ci : notamment au niveau du démantèlement des équipements à Marly, avec des dispositions par exemple pour le carrelage, les éléments de façade, la toiture, des dalles, des câbles et des fils de cuivre.  La réutilisation et le recyclage sont donc prévus, dans le respect de la hiérarchie des déchets.  Les incidences de la production sont prises en compte et le régime n’encouragera pas une mise à la casse prématurée de composants d’infrastructure en état de fonctionnement.  En outre, la mesure s’accompagne d’une stratégie globale de gestion des déchets favorisant d’abord la réparation, le ré-usage, l’utilisation pour d’autres buildings et ou des ouvrages similaires ; sous une nouvelle forme et ou sous une forme recyclée : au travers d’activités « promouvant la collecte de pièces détachées par les installations de traitement autorisées aux fins de leur réutilisation et de leur refabrication. » |

I-3.22 Verledding openbare verlichting – VLA

This measure is divided in two parts, dedicated on (1) motorways and (2) tunnels.

**Conversion of public lighting on motorways**

Tableau 61 Simplified approach – measure I-3.22 - Project Conversion of public lighting on motorways

| **Env. objective** | **Yes** | **No** | **Justification if 'No'** |
| --- | --- | --- | --- |
| Climate change mitigation | X |  |  |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Biodiversity and ecosystems | X |  |  |

Tableau 62 Substantive assessment – measure I-3.22 - Project Conversion of public lighting on motorways

| **Env. objective** | **No** | **Substantive justification** |
| --- | --- | --- |
| Climate change mitigation | X | The conversion from luminaires with sodium-low/high pressure discharge-lamps to led-luminaires contributes to climate change mitigation in several degrees: not only is the absorbed power (and thus the consumption at equal lighting hours) of the led-luminaires at least 35% lower than that of their lamp-counterparts, but also the conversion to led will make it possible to dim the public lighting during parts of the night, which conforms the vision on public lighting on highways of the Agency for Roads and Traffic (<https://wegenenverkeer.be/wegen/openbare-verlichting/lichtvisie-snelwegen>). By using this dimming functionality of led-luminaires and extra 27% in the total consumption of the luminaires in scope can be saved.  Further, also in scope of this project is the removal of light poles on places where there shouldn’t be any light conform the vision of public lighting on highways. The AWV foresees removing about 1.500 light poles with this project and will realize in that way an additional and not insignificant contribution to the energy efficiency goals.  Next to this, the contract to realize this project demands efforts of the contractors. e.g., the use of less polluting equipment (all vehicles used for this contract need to have an euroscore 67 or euronorm 5) is one of the minimal technical requirements. |
| Circular economy | X | Circularity is promoted throughout the contract for this project. The first step in this process is to get an overview on what exact materials are used in all the products that will be used for this project. Therefore, an Environmental Product Declaration conform ISO 14025:2006 must be delivered for all product(range)s used.  The contract also fixes that the old luminaires (and lamps) must be inventoried, and processed in accordance to the Flemish waste legislation (AEEA). Lamps for example must be transferred to a licensed processor, preferably a Recupel-partner, who recycles as many parts as possible. Other materials need to be demolished in accordance with the Flemish OVAM-guidelines. The contractor needs to use a demolition follow-up plan in which the possibilities for reuse and recycle of materials are used to the maximum.  Concerning the products themselves, a lot of technical requirements are stated in the contract to make sure that the products are durable. E.g., all luminaires (and their internal drivers) need to be Synergrid-conform, and no PVC-components are allowed. Also, the products aren’t allowed to have any particles of human added formaldehyde or MDI. Next to this, the progressive degradation of lumen output of the luminaires must be of at least L80B10 @60.000h (conform IEC 62717).  Furthermore, the coating-facility of the luminaires must have a Qualicoat-certificate (or equivalent) which evaluates the products and the process of powder coating these items.  Both those minimal requirements make that less maintenance, repairs and/or replacement is necessary which has a positive impact on the total amount of recycled material, as well as CO2-emissions.  Finally, all products are to be delivered without plastic packaging. |
| Biodiversity and ecosystems | X | In scope of the project is removing the light poles on those sites where, in accordance with the vision on public lighting on motorways of the AWV, no light is required. Removing public lighting is the most effective way to prevent light pollution, ergo reduce the impact of infrastructure on nature.  Standard led-luminaires for this project have a colour temperature of 4000K ± 400K, but the contract foresees the possibility to order more wildlife-friendly led-luminaires (with a lower colour temperature of 2700K ± 100K). |

**Conversion of lighting in tunnels**

Tableau 63- Simplified approach - Project Conversion of lighting in tunnels

| **Env. objective** | **Yes** | **No** | **Justification if 'No'** |
| --- | --- | --- | --- |
| Climate change mitigation | X |  |  |
| Climate change adaptation |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Water & marine resources |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Circular economy | X |  |  |
| Pollution prevention and control |  | X | The measure has no or an insignificant foreseeable negative impact on the environmental objective related to the direct and primary indirect effects of the measure across its life cycle. |
| Biodiversity and ecosystems | X |  |  |

Tableau 64- Substantive assessment - Project Conversion of lighting in tunnels

| **Env. objective** | **No** | **Substantive justification** |
| --- | --- | --- |
| Climate change mitigation | X | The conversion from luminaires with sodium-low pressure discharge-lamps (NaLP) and fluorescence lamps (TL) to led-luminaires contributes to climate change mitigation in several degrees: not only is the total installed power (and thus the consumption at equal lighting hours and lighting levels) of the tunnel lighting systems at least 65% lower than that of their NaLP and TL-counterparts, but the conversion to LED will make it possible to efficiently control the lighting system in the tunnel during the day hours when tunnel lighting consumes the most energy. |
| Circular economy | X | The contract includes that the old luminaires (and lamps) must be processed in accordance with the Flemish waste legislation (AEEA). Lamps for example must be transferred to a licensed processor, preferably a Recupel-partner, who recycles as many parts as possible. Other materials need to be demolished in accordance with the Flemish OVAM-guidelines.  Concerning the products themselves, a lot of technical requirements are stated in the contract to make sure that the products are durable. E.g., Luminaires will be composed of aluminium housings and hardened safety glass light caps. No PVC or PC components are allowed and halogens in the cable systems will be banned.  Next to this, the progressive degradation of lumen output of the LED’s must be of at least L90 @100.000h (based on IES LM-80). The LED drivers will also have to conform at L90B10 @100.000h. When determining the concept of the installations, great care was given to design the installations in such a way that maintenance can be more easily conducted with a lot less impact on traffic and materials compared to the current installations.  These requirements make that less maintenance and repairs are necessary, and that maintenance and repairs have less impact on traffic and used materials, which has a positive impact on the total amount of recycled material, as well as CO2-emissions. |
| Biodiversity and ecosystems | X | The relighting of the tunnels will result in the omission of all fluorescence technology-based lamps (TL). These lamps still use small amounts of Mercury in their composition. The omission of fluorescence lamps reduces the risk of mercury entering the ecosystem when improperly disposed of. |

1. SSP = Shared Socio-Economic Pathway; RCP = Representative Concentration Pathway [↑](#footnote-ref-2)
2. In Belgium, an environmental impact assessment must be carried out prior to submission of a permit (construction permit, environmental permit,…) for projects likely to have a significant impact on the environment. These studies are in-depth technical and scientific studies of a project's impact on the air, soil, surface and groundwater, flora and fauna, waste production, noise emissions, etc. and must be carried out independently by approved consultancy firms. Public authorities shall take into account the results of such assessments in their decision to deliver the permit. For further information:

   Brussels :

   * + [https://urbanisme.irisnet.be/lepermisdurbanisme/la-demande-de-permis/evaluation-des-incidences-environnementales-2](https://urbanisme.irisnet.be/lepermisdurbanisme/la-demande-de-permis/evaluation-des-incidences-environnementales-2" \o "https://urbanisme.irisnet.be/lepermisdurbanisme/la-demande-de-permis/evaluation-des-incidences-environnementales-2" \t "_blank)
     + [https://environnement.brussels/pro/services-et-demandes/permis-denvironnement/comment-preparer-votre-demande-de-permis-denvironnement#le-rapport-et-letude-dincidences](https://environnement.brussels/pro/services-et-demandes/permis-denvironnement/comment-preparer-votre-demande-de-permis-denvironnement" \l "le-rapport-et-letude-dincidences" \o "https://environnement.brussels/pro/services-et-demandes/permis-denvironnement/comment-preparer-votre-demande-de-permis-denvironnement#le-rapport-et-letude-dincidences" \t "_blank)
   * Wallonia : <https://permis-environnement.spw.wallonie.be/home/jai-un-projet/je-le-prepare/deuxieme-etape--realiser-une-evaluation-des-incidences.html>
   * Flanders : <https://www.vlaanderen.be/milieueffectrapport-mer>

   [↑](#footnote-ref-3)
3. See footnote 2 [↑](#footnote-ref-4)
4. See footnote 2 [↑](#footnote-ref-5)
5. See footnote 2 [↑](#footnote-ref-6)