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Implementation of the NZIA

Recommendations for resilience, sustainability, and social criteria

This paper has been adopted by the ESMC Working Group on Sustainable Solar PV Supply Chains. After the adoption of the Net Zero Industry Act (NZIA), we expect the European Union to introduce resilience and sustainability criteria aimed at stimulating increased manufacturing of solar PV within Europe, aligning with the targets outlined in the EU Solar Energy Strategy, the European Solar Charter and the broader European climate and energy objectives. We hope this paper can serve as a valuable resource for anyone interested in criteria for auctions of sustainably European-made solar modules in accordance with the objectives of the NZIA.

The energy transition is a pillar of the economic development of the European Union (EU). The full economic and social potential benefit of this transition for Europeans will only be achieved if this transition is associated with a reindustrialization of Europe.

In this landscape, the European Commission proposed the Net-Zero Industry Act (NZIA) in 2023, the NZIA sets out a framework for action by the European Commission and the Member States to strengthen European manufacturing capabilities of technologies strategic to the energy transition. The aim is to ensure that by 2030 the EU has a production capacity equivalent to 40% of deployment of the net-zero technologies (Art. 5.1 (a)). Solar energy is fundamental to the clean-transition and the NZIA implementation act key to ensure resilience and diversification of its supply chain.

The NZIA regulation includes three main provisions designed to promote the reindustrialization of renewable energies, relating to public procurement (Art 25), calls for tender (Art 26) and other support mechanisms such as feed-in tariffs (FIT) (Art 28)).

The NZIA calls for:

- the inclusion of minimum "requirement and award criteria", as well "conditions, requirements or contractual obligations for the work contracts and concession" (Art 25.1);
- the inclusion of pre-qualification criteria or award criteria to assess the auction's sustainability and resilience contribution (Art 26.1 (a) and (b));
- design support schemes in order "to promote high sustainability and resilience contribution [...] by either providing additional proportionate financial compensation, or by conditioning the eligibility" (Art 28.1).

Appendix 1 — NZIA criteria details the specific criteria for public procurement, tenders and other support schemes should include.

According to the International Energy Agency public auctions will account for 70 percent of Europe's renewable capacity growth between 2023 and 2028.¹ To respond to the growing interest on public auctions of renewable energy the European Commission has presented a recommendation and a guideline to the Member States on how to design auctions for deployment of renewable energy, including for solar PV projects.² A bearing part of the initiative is the Commission's recommendation of using non-price criteria in auctions for pursuing objectives that cannot be met with the "price only" dimension, such as resilience (avoid dependency on single supplier, i.e.; China, and develop a European value chain), social and environmental objectives, quality, innovation, cybersecurity etc.³ In the recommendation the Commission underlines the importance of strengthening European manufacturing of strategic net-zero industries, such as solar PV: "Member States should include in their auctions as soon as possible non-price criteria, either pre-qualification or award, pertaining to the contribution to a resilient supply chain, in accordance with Union legislation on establishing a framework of measures for **strengthening Europe's net-zero technology manufacturing ecosystem to avoid overdependence on a single source of supply** while preserving the competitiveness of the auctions." (paragraph 12) [our bold]

We welcome this clear statement. Europe's solar energy dependency on one single country makes us very vulnerable and jeopardizes both energy security and the whole green transition. The entire

¹[International Energy Agency \(2024\) Renewables 2023: Analysis and forecasts to 2028](#)

² [Recommendation and guidance on auction design for renewable energy](#), p.2

³ The EU Climate, Energy and Environmental Aid Guidelines ("CEEAG") and the Temporary Crisis and Transition Framework ("TCTF") allow the use of non-price criteria to pursue different objectives, although they could deviate from the principle of lowest price.

supply chain and manufacturing ecosystem for solar PV products need to be reshored to Europe to the greatest extent possible. As highlighted in the NZIA, leveraging auctions of solar PV products with criteria that clearly benefit European-made solar PV will be essential in the pursuit of rebuilding that ecosystem. In this paper, we make general recommendation on the NZIA implementation and propose a first set of criteria to be used for strengthening the buildup of European sustainable solar supply chain, thus contributing to an ambitious implementation of the NZIA directive. These criteria should be seen as a toolbox for Member States and public authorities to create strong mechanism in order to achieve the 40% goal set in Art.5.1 (a).

Summary of the criteria

Criteria	Eligibility/pre-qualification	Award or bonus
<i>Environmental sustainability criteria</i>		
Carbon footprint	✓	✓
Compliance with EU environmental legislation	✓	
Content constraints	✓	
Recyclability	✓	✓
<i>Contribution to resilience</i>		
Exclusion or penalty for countries with more than 50% market share	✓	
Number of stages completed in Europe	✓	✓
Made in Europe criteria	✓	
<i>Responsible business conduct (RBC): introducing social criteria</i>		
Forced labour	✓	
European Convention on Human Rights	✓	✓
United Nations International Covenant on Civil and Political Rights (ICCPR)	✓	✓
Sanctions for human rights violations	✓	✓

ESMC will continue to work actively to develop these criteria.

1. Proposed timetable and general recommendation

Following the publication of the NZIA, European Commission will have 9 months to produce the delegated and implementing acts identified in Articles 25 to 29 of the text. From the date of publication, the Member States will have 18 months to adapt their support schemes, meaning by October 2025 at the latest.

1.1 Proposed timetable

It is of utmost importance for the existing PV manufacturing companies as well as for the realization of new PV manufacturing industry projects in Europe that the implementation of NZIA will take place as fast as possible, as supported by the recently signed European Solar Charter. The European solar industry is at risk, and with it the resilience required for the energy transition. For Europe to become competitive, the industry needs to be built on existing criteria of European excellence, such as sustainability and innovation.. Together with the united European solar industry sector – European Solar PV Industry Alliance⁴ - we are **calling for the NZIA delegated and implementation acts to be adopted as soon as possible.** In this way, the most ambitious Member States will be able to adapt their support systems as early as in 2025, giving the industry a more predictable future and vision, and increasing the chances of opportunities for businesses. As having a clear view of the future market is key to allow new investment in Europe, **ESMC calls for regular dialogue between manufacturers, policy makers and Member States — in line with the agreement in the European Solar Charter — to ensure that regulation and investment move forward together.**

As such, eligibility/pre-qualification and award or bonus criteria presented in this document have to be implemented by member state after discussion with national EU manufacturers in order to match the production capacity.

⁴ [ESIA Recommendations Paper Series V: Fostering the Solar PV Industry, ESIA's Roadmap Proposal for the Net Zero Industry Act](#)

1.2 Traceability and control

Traceability and access to reliable and verified data is essential for any selected criteria to fulfil its intention, limiting the opportunity for both green and whitewashing.

Additionally, the data should be stored in a dedicated database to be easily used by third parties, not in company website. Several databases exist throughout the Europe but are not yet centralized beyond borders of each country.

ESMC recommend that each PV module has unique barcode displayed either in whole EU or separate EU countries databases. More generally, PV modules component data must be accessible to third parties, in particular to Member States. **ESMC support the implementation of a PV Passport that will allow to give access to composition, environmental impact and social criteria of the modules sold and used in Europe.**

1.3 General recommendations

Furthermore, it is imperative that the utilization of NZIA's eligibility, award, and bonus criteria aligns with the progression of European PV production, thereby advancing the objectives delineated in Article 3 of the NZIA. **In support of this alignment, the PV manufacturing industry advocates for a biennial review by the European Commission.** We emphasize that the inaugural review should occur prior to 2027, with a primary focus on evaluating the efficacy of these criteria in fostering the establishment and sustenance of PV manufacturing within Europe.

The scope of Art 28 is in particular very generic, asking to include eligibility or bonus criteria on every scheme to promote the purchase by beneficiaries of net zero technology final products. The request should encompass fiscal mechanisms that benefit customers.

Many criteria refer to the country of origin of the product, component or manufacturing step. **We encourage the Commission to provide a clear definition of the country of origin to avoid circumvention.** We recommend a definition of a country that has more than 50% market share means the combined global market share of all the production, originating not only from within the third country's borders but also that produced outside of its national borders by entities controlled either directly or indirectly by companies' or consortiums based within that specific country.

Art 25, 26 and 28 refers to "disproportionate costs" that could result from the application of these criteria. It should be clarified that the cost doesn't refer to the cost of the specific components or

hardware, but rather refers to the Levelized Cost of Electricity, i.e. the cost to the final customer, or the cost for the Government budget for the support scheme and not the cost of solar modules. Additionally, ESMC recommend having non-price criteria specific and dedicated support schemes for the PV sector to be able to support the reshoring of PV in Europe. Criteria also have to be developed to be technologically neutral, and not focus exclusively on silicon-based solar modules and discriminate against alternative technology pathways available on a commercial scale, such as thin-film PV. The criteria must be broad enough to withstand technological change.

1.4 Cyber- and data security

We foresee that more work needs to be done on the issue of cyber- and data security. The inverter is the heart and brain of the PV system since the whole system is controlled from the inverter and all critical data registered and stored there. The control centers of the Inverter manufacturers hold the authority for software-updates and to modify operational performance through grid code configurations, such as:

- Shut-down commands
- Charge/discharge commands
- Frequency control
- Grid export limits

Currently European PV inverter companies are quickly losing market shares and an estimate of 80% of all new inverters currently installed in the EU are now made in China.

China's National Intelligence Services Law requires any organization or citizen to provide assistance when requested by the Chinese government. That means that the Chinese state, in a polarized situation, could force Chinese inverter manufacturers to provide the data about European PV systems. In a worst case scenario of a conflict China could potentially through Chinese inverter manufacturers orchestrate blackouts in Europe. Attacks on inverters could potentially lead to major blackouts that even result in "black starts": a total restart of the entire power grid, which can take a week. This potential problem could be mitigated by procuring European made inverters instead of Chinese.

2. Environmental sustainability criteria

The NZIA states that: *“minimum mandatory requirements regarding environmental sustainability”* is compulsory for public contracts (Art 25.1) and : *“environmental sustainability going beyond the minimum requirements in applicable legislation”* can be included in the tenders (Art 26.1a (b)) and other support schemes (28 (3a)). We believe that there is a huge potential for procurers in the EU to set ambitious environmental criteria based of these mentioned provisions and that there are already some criteria in place that can be used.

2.1 Carbon footprint

The carbon footprint criterion is a proven and effective non-price criterion already implemented by some member states.

Since 2011, France introduced eligibility criteria (for tenders and feed-in tariffs) and award criteria (for calls for tender) based on the carbon footprint of the modules used⁵. A bonus criterion for feed-in tariffs based on carbon footprint is under development.

In the Netherlands, the Community of Public Buyers recommends the use of carbon footprint for sustainable solar PV, based on the French methodology⁶.

Carbon footprint, in a twofold way, supports the European green and social energy transformation: it supports the solar manufacturing industry, securing jobs, and investments without risking the deployment of photovoltaic.

This carbon footprint mechanism has proven its usefulness but until now, wasn't sufficient on its own to restore market balance for European producers⁷. **Thus, ESMC recommend Carbon footprint to be used as an award or eligibility criteria in addition to other criteria to help achieve the goal of 40% of PV developed in Europe to be produced in Europe, as set in Art 5.**

The carbon footprint mechanism must be based on a robust methodology, avoiding any reliance on individual declarations by producers, which are difficult to verify. The use of green certificates must therefore be avoided in order to limit any distortion, and a strong mechanism of control and verification must be implemented. It is well known that it is very difficult to find a perfect regulation

⁵ [The French Ground PV Tender](#)

⁶ [Buyer Group Duurzame Zonnepanelen](#)

⁷ [Community of Public Buyers for Sustainable Solar PV](#)

of a certificate market. In many cases, such certificates lack traceability and credibility, and greenwashing (such as both claiming green certificates and then selling them to other actors rather than retiring them) is a genuine risk. For the sake of transparency and reliability, it is important to reduce such risks. The use of national grid mix emission factors for the carbon footprint calculation, based on reliable sources such as the International Energy Agency, will simplify verification, and improve control and thus credibility while incentivizing countries to decarbonize their electricity grid. This will have a much more significant impact on global carbon emissions than incorporating uncertain certificates that result in greenwashing.

Furthermore, mandatory information points in the Carbon footprint certificates on where the Mg-Si and Polysilicon are produced should be included. A mechanism can be based on the carbon content defined in the French support schemes (tenders and feed-in tariffs) and Dutch public procurement or the EPEAT methodology (see below).

The French methodology described in the government tenders offers a good methodology, as the French government has regularly updated this methodology to adapt it and prevent the circumventions that were being observed. On April 5th, the French Minister for Energy announced a change in the methodology to avoid bypass and a bonus in PV feed-in tariff for small ground-mounted PV based on the carbon footprint⁸. This methodology offers 10 years of experience from a member state and can be easily replicated.

Another CO₂ footprint calculation methodology such as the EPEAT label⁹ (which is based on default values) can further ensure a swift implementation without creating excessive red tape for market participants. EPEAT methodology however open the room for green certificate for a limited amount of electricity, generating the risk already mentioned.

The EPEAT label and the French methodology use the functional unit for kW_p in opposite to the functional unit of kWh. A study from Fraunhofer ISE ¹⁰ illustrates how varying parameters, like module lifetime, degradation rate and purchased renewable electricity certificate allowance limit, stemming from the differing methodological approaches can influence the carbon footprint

⁸ [Discours de Bruno Le Maire « Plan de bataille pour le photovoltaïque en France » - Presse - Ministère des Finances \(economie.gouv.fr\)](#)

⁹ [EPEAT Registry](#)

¹⁰ Khan, A. A., Molina, P., Reichel, C., Protti, A. A., Neuhaus, D. H., Rentsch, J., & Nold, S. (2024). [The EU Ecodesign Directive – Analysis of Carbon Footprint Assessment Methodology and Implications for PV Module Manufactures](#). Solar Rapid Research Letters (RRL) (solr.202301011).

calculation. For calculating the carbon footprint in the functional unit of kWh requires fixing parameters — meaning using generic standardized assumptions rather than actual characteristics of the PV modules — such as lifetimes, output, and degradation rates which vary between modules, or trust the warranties given by the producers. Not all PV warranties are created or implemented equally, which makes the latter approach uncertain. Using fixed parameters, allows modules with lower lifetimes, higher degradation, and questionable warranties to achieve the perception of a lower carbon footprint. Based on research¹¹, energy yield can increase by approximately 142% due to longer lifetimes (40 years vs. 15 years) and can increase by approximately 29% due to degradation rate improvement (0% vs. 1.5%).

If a robust carbon footprint calculation methodology is implemented with limited scope for greenwashing, a maximum carbon footprint threshold can be added, to restrict the support schemes to low-carbon modules.

The sensitivity of the rating of the carbon footprint (i.e. the number of award points a change in the carbon footprint of the module can bring) is key for the impact of the carbon footprint criteria. As such, a bottom threshold is necessary to ensure this sensitivity.

Exact values of course depend on the methodology.

For example, the current French methodology as used in April 2024 and the Dutch public buyer's community recommendation, ESMC recommends an upper threshold of 550 kg CO₂e/kWp and a lower threshold of 200 kg CO₂e/kWp. These values will change in the near future to follow the changes in the methodology.

Specific thresholds must be determined once the reference methodology is meticulously defined, following a thorough market analysis.

Furthermore, it is important that this criterion and should be reviewed regularly by member states and/or the European Commission. Eligibility and/or rating criteria: use of a carbon footprint as an eligibility and/or award criteria using a robust methodology that avoids any circumvention, based on the countries' energy mix, with minimum and maximum threshold.

¹¹ Khan, A. A., Reichel, C., Molina, P., Friedrich, L., Subasi, D. M., Neuhaus, H., & Nold, S. (2024). [Global warming potential of photovoltaics with state-of-the art silicon solar cells: Influence of electricity mix, installation location and lifetime](#). *Solar Energy Materials and Solar Cells*, 269, 112724.

2.2 Compliance with EU Environmental Legislation

A basic criterion should be that all imported solar products should comply with the same environmental legislation as the one applicable for European manufacturers. Before a production site is built, European projects must comply with a rigorous authorization procedure, based on hazard studies, impact assessments and dialogues with local communities. During operation, the sites must comply with waste and emission legislation, particularly for air and water, to minimize the impact on the environment and local communities. These standards are essential to ensure sustainable production that respects the environment.

Compliance with these standards should be introduced as a market access criterion in public procurement (Art 25), eligibility criteria in tenders (Art 26) or for other support schemes (Art 28), to ensure both fair market rules between players, and global protection of the environment by avoiding the relocation of environmental impacts.

ESMC advocates for a selection of key standards to be met, based on European environmental legislation, to create a fair PV market, ensure just and balanced competition and avoid environmental dumping. At the same time, respecting EU environmental legislation will benefit the global environment and limit the outsourcing of pollution.

As such, compliance with EU legislation on discharge into the environment should be a market access requirement.

Certification would then have to be carried out by a reputable, well known independent inspection body with a multiyear solid track record. An overall verification must be carried out by comparing the environmental standards of the country of production with the EU legislation, and dedicated control of the production site based on a real, unannounced and random analysis of its discharges. Member states can request as a market access criterion an environmental impact assessment or a risk assessment, assessed by an independent European competent authority.

<p>Eligibility criterion - environmental sustainability: compliance with some EU environmental standards by the country or production site.</p>
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2.3 Content constraints

Specifications on product composition could be introduced:

- Polymer coatings cannot contain halogens (such as fluorine, bromine, and chlorine) and be free of PFAS chemicals in the back sheet, to avoid the use of substances that disrupt recycling processes.
- Antimony-free solar glass should be encouraged to avoid the use of substances that disrupt recycling processes. Antimony-free glass must be the norm in the future in accordance to the recommendations from the European Solar Industry Alliance (ESIA)¹² once there is enough antimony-free solar glass production in Europe.

Eligibility criterion - environmental sustainability:

- no PFAS in the backsheet;
- Antimony-free solar glass once there is enough European production.

2.4 Recycling

A sustainability criterion to encourage the recyclability of PV modules should be introduced, through the implementation of the CENELEC EN50625-2-4 and TS50625-3-5 processing standards. When finalized, a reference to the Recycling index from EU commission can be made.

Eligibility, rating or bonus criterion - environmental sustainability: compliance with CENELEC standard EN50625-2-4 and TS50625-3-5.

¹² [Recommendations Paper Series II – Addressing uncertain antimony content in solar glass for recycling](#)

3. Contribution to resilience

3.1 Exclusion or penalty for countries with more than 50% market share

The NZIA links resilience to Europe's dependence on a third country for more than 50% of a certain technology.

The definition of a country that has more than 50% market share should mean the combined global market share of all the production, originating not only from within the third country's borders but also that produced outside of its national borders by entities controlled either directly or indirectly by companies based within that country.

An eligibility criterion for certain support schemes could exclude products from this type of country if a situation of dependence is identified by the Commission. This could concern one or more key stages in the manufacture of a photovoltaic module. Such eligibility criteria can only be used in dedicated procurement, tender, or support schemes when the volume of PV manufactured in Europe or from countries different from the one identified by the commission is coherent with the volume of this public procurement, tender, or support scheme.

During an interim period, while European manufacturing is developing and scaling, a scoring criterion in public procurement and tender or a bonus in feed-in tariff could reward products made in countries that meet this resilience criterion. To be effective, this criterion should apply to each key stage in the supply chain of a photovoltaic module. A bonus would be allowed for every step made in a country where the dependency is above 50%, or by companies where most of the production is made in a country where the dependency is above 50%.

Eligibility and/or scoring criteria: exclude some public procurements, tenders, or support schemes or penalize products from countries with more than 50% of the European market.
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3.2 European content: Number of stages completed in Europe

An eligibility or rating criterion could reward products according to the number of stages carried out in Europe. This criterion seems more likely to meet the objective of reindustrialization mentioned in Article 5 of the NZIA, in addition to a criterion targeting a country with a strong predominance in the market.

In Germany, Fraunhofer ISE proposed a resilience bonus to be awarded in feed-in tariff or award criteria in auctions. The bonus criteria for feed-in tariffs gives additional financial support for each step of the value chain completed in Europe. In the same way, each step of the value chain completed in Europe gives additional points in the auction mechanism.

As such, a minimum number of stages to be completed in the EU could be introduced as an eligibility/ market access criterion.

In addition, an award criterion (in tenders or public procurements) or in the form of a premium (in feed-in tariffs) can also be introduced, in order to enhance the value of each stage.

The number of stages made in Europe requested as a market access criterion, and the level of the bonus if used and an award or bonus criteria have to evolve in time to cope with the European production capacity.

This criterion is the only one focusing directly on EU made product, to achieve the goal of NZIA article 5.

Eligibility and/or rating or bonus criterion: number of value chain steps located and completed in Europe.

3.3 European content: made in Europe eligibility criterion

Similarly, Italy introduced 2024 financial credits to stimulate the purchase of European-made PV modules^{13 14} as part of its National Recovery and Resilience Plan.

ESMC welcomes the initiative and expects the Italian government to present the details. To our knowledge, the Italian system is the only one focusing directly on EU-made products to meet the NZIA Art. 5 provisions.

Eligibility criterion: “made in Europe” criteria for modules and/or specific part of the value chain.

¹³ [PV magazine, Italy offers fiscal breaks to PV projects built with EU-made solar modules](#)

¹⁴ [Article 38 of DECRETO-LEGGE 2024, n.19, Article 12, paragraph 1 of DECRETO-LEGGE 2023, n. 181](#)

4. Responsible business conduct (RBC): introducing social criteria.

Social criteria can also be incorporated into public support schemes. Article 26 of the NZIA provides for "Responsible Business Conduct" criteria to be mandatory in Member States' calls for tenders. These RBC criteria may be based on the following social criteria.

4.1 Forced labour

Once enforced, the Forced Labour Regulation (FLR) will provide the Commission and the Member States the means to investigate and remove products produced made with forced labour — in particular, state-imposed - from the market.

However, the Forced Labour Ban will be compulsory first within 36 months after the final adoption of the Council of the European Union (due autumn 2024). ESMC urges member states to use NZIA to introduce responsible business conduct criteria in tenders, requesting that no production steps are made using Forced labour. The implementation of these criteria could be based on the database of risk products and regions that will be available 18 months from the adoption of FLR. As argued in the recommendation paper of European Solar PV Industry Alliance (ESIA)¹⁵ the solar industry clearly condemn all forms of forced labour and it must be eradicated from all stages of the solar supply chain. Consequently, solar products with no exposure to forced labour must be applied as pre-qualification criterion rather than non-price award criterion as foreseen by Art. 26 of the NZIA.

Credible, independent, and robust certifications, provide evidence of the respect for human rights and the commitment of the company to respecting social standards. Today, several labeling and certification regimes are available, such as RBA VAP, SA8000, TFS, or equivalent, but in some regions in China – in particular Xinjiang – it is impossible to carry out independent audits, why reliance on such schemes is not an option. **Regions exposed to forced labour, such as the Xinjiang province in China, should be registered in the EU Database on forced labour.** As for previous resilience criteria, such an eligibility criterion should be introduced in some tenders in coherence with production of modules respecting it, once the tools to track forced labor are developed.

Eligibility criterion: ban on products from countries/regions with exposure to forced labour.
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¹⁵ [ESIA Stance against forced labour & a Due Diligence Guide for Solar PV Supply Chains](#)

4.2 Charter of Fundamental Rights of the European Union

The Charter of Fundamental Rights of the European Union enshrines the fundamental rights of individuals in the European Union. It became legally binding with the entry into force of the Lisbon Treaty on 1 December 2009. It remains binding on the EU institutions and the Member States when they act within the scope of EU law.

The Charter of Fundamental Rights of the European Union enshrines 50 fundamental rights of the European Union (see *Appendix 2 — CHARTER OF FUNDAMENTAL RIGHTS OF THE EUROPEAN UNION*). Compliance with all or some of these rights could be rated by an accredited body, to define a selection criterion. Control bodies are already applying the ISO 37001 standard on corruption, and hence could develop the expertise to assess compliance with the rights set out in the EU Charter of Fundamental Rights by the country of production at each key stage in the production of PV modules.

Eligibility and/or rating or bonus criteria: compliance with a minimum number of rights protected by the Charter of Fundamental Rights of the European Union.

4.3 European Convention on Human Rights

The European Convention on Human Rights and its protocols cover a set of 22 rights protected by the Convention (see *Appendix 3 — European Convention on Human Rights*). Respect for these rights could be rated by an accredited body, to define a criterion for exclusion, rating, or bonus in support schemes.

Eligibility and/or rating or bonus criteria: respect for a minimum number of rights protected by the European Convention on Human Rights.

4.4 United Nations International Covenant on Civil and Political Rights (ICCPR)

Failure to sign or ratify this protocol could constitute an objective criterion of non-compliance with a basic social standard, and constitute an eligibility, rating, or bonus criterion.

Eligibility and/or rating or bonus criterion: number of stages carried out in countries that have not signed or ratified the United Nations International Covenant on Civil and Political Rights (ICCPR).

4.5 Sanctions for human rights violations

A selection criterion could be to ban or penalize equipment from countries for which the EU has imposed sanctions for human rights violations, under the EU Global Human Rights Sanction Regime.

Eligibility criterion: number of stages carried out in countries for which the EU has imposed sanctions for human rights violations, under the EU Global Human Rights Sanction Regime.

Appendix 1 — NZIA criteria

1 The introduction of dedicated calls for tender in favor of reindustrialization.

Article 26 of the NZIA requires that 30% of Member States' public tenders (up to a limit of 6GW) include selection and rating criteria designed to strengthen Europe's reindustrialization in the RE sector.

National calls for tenders supporting the development of renewable energies must contain pre-qualification criteria, based in particular on "Responsible Business Conduct", cyber security, data security and the ability to complete the project on time, as well as pre-qualification or rating criteria based on resilience and sustainability.

The scoring criteria based on the project's contribution to resilience and sustainability must be based on the proportion of strategic equipment produced outside the EU, as well as on one of the following criteria:

- Environmental sustainability.
- Contribution to innovation.
- Contribution to integration into the energy system.

The criteria selected will have a minimum weighting of 5% each and a combined weighting of between 15% and 30% of the final score. Member States may dispense with these criteria if the additional cost is greater than 15%.

2 Bonuses in other support schemes

Member States should also promote the purchase of equipment with a high level of resilience and sustainability in their new renewable energy support schemes. The proposed criteria are the same as for calls for tender.

The overall additional cost to the consumer must not exceed 5%.

3 Public procurement

Article 25 stipulates that public contracts for "net zero" technologies must include environmental sustainability criteria, defined by the Commission in a delegated act.

Public procurement contracts must also include at least one of the following measures:

- a specific condition relating to social or employment considerations ;
- compliance with Community provisions on cybersecurity;
- a contractual obligation to deliver the technology on time.

The delegated act must be adopted on the basis of :

- the market situation for this technology in Europe;
- the EU's environmental sustainability provisions; and
- the EU's international commitments, in particular the WTO GPA.

Article 4a states that if the Commission considers that more than 50% of this technology comes from a single EU third country, or if the market share of this country has increased by more than 10% on average over two consecutive years and reaches 40% of market share, then the public procurement :

- must prohibit more than 50% by value of that technology and those specific components from coming from that third country, over the duration of the contract;
- provide evidence to the contracting authorities;
- otherwise pay a penalty of 10% by value.

An additional cost of 20% may be considered disproportionate.

Appendix 2 — CHARTER OF FUNDAMENTAL RIGHTS OF THE EUROPEAN UNION

- 1 Human dignity
- 2 Right to life
- 3 Right to personal integrity
- 4 Prohibition of torture and inhuman or degrading treatment or punishment
- 5 Prohibition of slavery and forced labour
- 6 Right to liberty and security
- 7 Respect for private and family life
- 8 Protection of personal data
- 9 Right to marry and right to found a family
- 10 Freedom of thought, conscience and religion
- 11 Freedom of expression and information
- 12 Freedom of assembly and association
- 13 Freedom of the arts and sciences
- 14 Right to education
- 15 Professional freedom and the right to work
- 16 Freedom of enterprise
- 17 Right to property
- 18 Right to asylum
- 19 Protection in the event of removal, expulsion or extradition
- 20 Equality before the law
- 21 Non-discrimination
- 22 Cultural, religious and linguistic diversity
- 23 Equality between women and men
- 24 Children's rights
- 25 Rights of the elderly
- 26 Integration of people with disabilities
- 27 Workers' right to information and consultation within the undertaking
- 28 Right to collective bargaining and action
- 29 Right of access to placement services
- 30 Protection in the event of unjustified dismissal
- 31 Fair and just working conditions
- 32 Prohibition of child labour and protection of young people at work
- 33 Family and working life
- 34 Social security and social assistance
- 35 Health protection
- 36 Access to services of general economic interest
- 37 Environmental protection
- 38 Consumer protection
- 39 Right to vote and to stand as a candidate in [national] elections
- 40 Right to vote and to stand as a candidate in municipal elections
- 41 Right to good administration
- 42 Right of access to documents
- 43 European Ombudsman [Access to an ombudsman]
- 44 Right to petition
- 45 Freedom of movement and residence
- 46 Diplomatic and consular protection
- 47 Right to an effective remedy and to a fair trial
- 48 Presumption of innocence and rights of defence
- 49 Principles of legality and proportionality of offences and penalties
- 50 Right not to be tried or punished twice in criminal proceedings for the same offence

Appendix 3 — European Convention on Human Rights

Provision Articles of the Convention:

- 1 Art 1: Obligation to respect human rights States must ensure that everyone has the rights stated in this Convention.
- 2 Art 2: Right to life You have the right to life.
- 3 Art 3: Prohibition of torture No one ever has the right to hurt you or torture you. Even in detention, your human dignity has to be respected.
- 4 Art 4: Prohibition of slavery and forced labour No one shall be held in slavery or servitude. It is prohibited to treat you as a slave or to impose forced labour on you.
- 5 Art 5: Right to liberty and security You have the right to liberty. If you are arrested, you have the right to know why. If you are arrested you have the right to stand trial soon, or to be released until the trial takes place.
- 6 Art 6: Right to a fair trial You have the right to a fair trial before an unbiased and independent judge. If you are accused of having committed a crime, you are innocent until proven guilty. You have the right to be assisted by a lawyer who must be paid by the state if you are poor.
- 7 Art 7: No punishment without law You cannot be held guilty of a crime if there was no law against it when you did it.
- 8 Art 8: Right to respect for private and family life. You have the right to respect your private and family life, your home, and your correspondence.
- 9 Art 9: Freedom of thought, conscience, and religion You have the right to freedom of thought, conscience, and religion. You have the right to practice your religion at home and in public and to change your religion if you want.
- 10 Art 10: Freedom of expression You have the right to responsibly say and write what you think and to give and receive information from others. This includes freedom of the press.
- 11 Art 11 Freedom of assembly and association You have the right to take part in peaceful meetings and to set up or join associations - including trade unions.
- 12 Art 12: Right to marry You have the right to marry and to have a family.
- 13 Art 13: Right to an effective remedy If your rights are violated, you can complain about this officially to the courts or other public bodies.
- 14 Art 14: Prohibition of discrimination You have these rights regardless of your skin color, sex, language, political or religious beliefs, or origins.

- 15 Art 1 Protocol 1: Protection of property. You have the right to own property and use your possessions.
- 16 Art 2 Protocol 1: Right to education You have the right to go to school.
- 17 Art 3 Protocol 1: Right to free elections You have the right to elect the government of your country by secret vote.
- 18 Art 2 Protocol 4: Freedom of movement If you are lawfully within a country, you have the right to go where you want and to live where you want within it.
- 19 Art 1 Protocol 6: Abolition of the death penalty You cannot be condemned to death or executed by the state.
- 20 Art 2 Protocol 7: Right of appeal in criminal matters You may appeal to a higher court if you have been convicted for committing a crime.
- 21 Art 3 Protocol 7. Compensation for wrongful conviction You have the right to compensation if you have been convicted for committing a crime and it turns out that you were innocent.
- 22 Art 1 Protocol 12: General prohibition of discrimination You cannot be discriminated against by public authorities for reasons of, for example, your skin colour, sex, language, political or religious beliefs, or origins.