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**TRADE AND AGRICULTURE DIRECTORATE  
PARTICIPANTS TO THE ARRANGEMENT ON OFFICIALLY SUPPORTED EXPORT CREDITS**

**SECTOR UNDERSTANDING ON EXPORT CREDITS FOR RENEWABLE ENERGY, CLIMATE  
CHANGE MITIGATION AND WATER PROJECTS**

*This document contains the text of the new Sector Understanding on Export Credits for Renewable Energy, Climate Change Mitigation and Water Projects agreed by the Participants to the Arrangement on Officially Supported Export Credits. This text will replace Annex IV of the Arrangement on Officially Supported Export Credits.*

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## **SECTOR UNDERSTANDING ON EXPORT CREDITS FOR RENEWABLE ENERGY, CLIMATE CHANGE MITIGATION AND WATER PROJECTS**

The purpose of this Sector Understanding is to provide adequate financial terms and conditions to projects in selected sectors identified including under international initiatives as significantly contributing to climate change mitigation, including renewable energy, greenhouse gas (GHG) emissions' reduction and high energy efficiency projects as well as water projects. The Participants to this Sector Understanding agree that the financial terms and conditions of the Sector Understanding, which complements the Arrangement, shall be implemented in a way that is consistent with the Purpose of the Arrangement.

### **CHAPTER I: SCOPE OF THE SECTOR UNDERSTANDING**

#### **1. SCOPE OF APPLICATION FOR PROJECTS IN RENEWABLE ENERGY SECTORS ELIGIBLE TO APPENDIX I**

- a) This Sector Understanding sets out the financial terms and conditions that apply to officially supported export credits relating to contracts in the eligible sectors listed in Appendix I of this Sector Understanding for:
  - 1) The export of complete renewable energies plants or parts thereof, comprising all components, equipment, materials and services (including the training of personnel) directly required for the construction and commissioning of such plants.
  - 2) The modernisation of existing renewable energies plants in cases where the economic life of the plant is likely to be extended by at least the repayment period to be awarded. If this criterion is not met, the terms of the Arrangement apply.
- b) This Sector Understanding does not apply to items located outside the power plant site boundary for which the buyer is usually responsible, in particular, water supply not directly linked to the power production plant, costs associated with land development, roads, construction villages, power lines and switchyard, as well as costs arising in the buyer's country from official approval procedures (*e.g.* site permits, construction permit), except:
  - 1) In cases where the buyer of the switchyard is the same as the buyer of the power plant and the contract is concluded in relation to the original switchyard for that power plant, the terms and conditions for the original switchyard shall not exceed those for the renewable energies power plant; and

- 2) The terms and conditions for sub-stations, transformers and transmission lines with a minimum voltage threshold of 60kV located outside the renewable energies power plant site boundary shall not be more generous than those for the renewable energies power plant.

## **2. SCOPE OF APPLICATION FOR PROJECTS IN CLIMATE CHANGE MITIGATION SECTORS ELIGIBLE TO APPENDIX II**

- a) This Sector Understanding sets out the financial terms and conditions that apply to officially supported export credits relating to contracts in a sector listed in Appendix II of this Sector Understanding. This list of sectors and, when applicable, corresponding technology-neutral performance criteria used to define a project's eligibility, may be modified over time in accordance with the review provisions set out in Article 11 of this Sector Understanding.
- b) Such contracts shall relate to the export of complete projects or parts thereof, comprising all components, equipment, materials and services (including the training of personnel) directly required for the construction and commissioning of an identifiable project, providing that:
  - 1) The project should result in low to zero carbon emissions, or CO<sub>2</sub> equivalent, and/or in high energy efficiency;
  - 2) The project should be designed to meet, as a minimum, the performance standards as set out in Appendix II; and
  - 3) The terms and conditions provided shall be extended only to address specific financial disadvantages encountered by a project, and shall be based on the individual financial needs and specific market conditions of each project.

## **3. SCOPE OF APPLICATION FOR WATER PROJECTS**

This Sector Understanding sets out the financial terms and conditions that apply to officially supported export credits relating to contracts for the export of complete projects or parts thereof related to the supply of water for human use and wastewater treatment facilities:

- a) Infrastructure for the supply of drinking water to municipalities, including to households and small businesses, *i.e.* water purification for the purpose of obtaining drinking water and distribution network (including leakage control).
- b) Wastewater collection and treatment facilities, *i.e.* collection and treatment of household and industrial wastewater and sewage, including processes for the re-use or recycling of water and the treatment of sludge directly associated with these activities.
- c) The modernisation of such facilities in cases where the economic life of the plant is likely to be extended by at least the repayment period to be awarded. If this criterion is not met, the provisions of the Arrangement apply.

## **CHAPTER II: PROVISIONS FOR EXPORT CREDITS**

### **4. MAXIMUM REPAYMENT TERMS**

- a) For officially supported export credits relating to contracts in the sectors listed in Appendix I, and for water projects defined in Article 3 of this Sector Understanding, the maximum repayment term is 18 years.
- b) For officially supported export credits relating to contracts of a value of at least SDR 10 million in the project classes listed in Appendix II, the maximum repayment term is set out as follows:
  - 1) For contracts in Project Class A: 18 years.
  - 2) For contracts in Project Class B and Project Class C: 15 years.
- c) For officially supported export credits relating to contracts of a value of less than SDR 10 million in the project classes listed in Appendix II, the maximum repayment term is set out as follows:
  - 1) For Category I countries as defined in Article 11 of the Arrangement, the maximum repayment term is five years, with the possibility of agreeing up to eight-and-a-half years when the procedures for prior notification set out in Article 9 of this Sector Understanding are followed.
  - 2) For Category II countries, the maximum repayment term is ten years.
  - 3) Notwithstanding sub-paragraphs 1) and 2) above, for non-nuclear power plants as defined in Article 13 of the Arrangement, the maximum repayment term is 12 years.

### **5. REPAYMENT OF PRINCIPAL AND PAYMENT OF INTEREST**

- a) The Participants shall apply a profile of repayment of principal and payment of interest as specified in sub-paragraphs 1) or 2) below:
  - 1) Repayment of principal shall be made in equal instalments.
  - 2) Repayment of principal and payment of interest combined shall be made in equal instalments.
- b) Principal shall be repaid and interest shall be paid no less frequently than every six months and the first instalment of principal and interest shall be made no later than six months after the starting point of credit.

- c) On an exceptional and duly justified basis, official support may be provided on terms other than those set out in a) and b) above. The provision of such support shall be explained by an imbalance in the timing of the funds available to the obligor and the debt service profile available under an equal, semi-annual repayment schedule, and shall comply with the following criteria:
- 1) No single repayment of principal or series of principal payments within a six-month period shall exceed 25% of the principal sum of the credit.
  - 2) Principal shall be repaid no less frequently than every 12 months. The first repayment of principal shall be made no later than 18 months after the starting point of credit and no less than 2% of the principal sum of the credit shall have been repaid 18 months after the starting point of credit.
  - 3) Interest shall be paid no less frequently than every 12 months and the first interest payment shall be made no later than six months after the starting point of credit.
  - 4) The maximum weighted average life of the repayment period shall not exceed 60% of the maximum available tenor.
- d) Interest due after the starting point of credit shall not be capitalised.

## 6. MINIMUM INTEREST RATES

A Participant providing official financing support for fixed rates loans shall apply the following minimum interest rates:

Repayment term (years)	Standard minimum interest rates		Minimum interest rates for projects with long construction periods, <i>i.e.</i> : - New large hydro-power projects - Appendix II Project Class A	
	Government bonds (years)	Margin (bps)	Government bonds (years)	Margin (bps)
< 11	Relevant CIRR in accordance with Article 20 of the Arrangement			
11 to 12	7	100	7	100
13	7	120	8	120
14	8	120	9	120
15	8	120	9	120
16	9	120	10	125
17	9	120	10	130
18	10	120	10	130

## **7. ELIGIBLE CURRENCIES**

The currencies that are eligible for official financing support are those which are fully convertible and for which data are available to construct the minimum interest rates mentioned in Article 6 of this Sector Understanding, and Article 20 of the Arrangement for repayment terms less than 11 years.

## **8. LOCAL COSTS**

- a) For officially supported export credits relating to contracts of a value of at least SDR 10 million, official support provided for local costs shall not exceed 30% of the export contract value.
- b) For officially supported export credits relating to contracts of a value of less than SDR 10 million:
  - 1) For the sectors listed in Appendix I, official support provided for local costs shall not exceed 45% of the export contract value.
  - 2) For the sectors listed in Appendix II and for water projects defined in Article 3 of this Sector Understanding, official support provided for local costs shall not exceed 30% of the export contract value.
- c) Where official support for local cost exceeds 15% of the export contract value, such official support shall be subject to prior notification, pursuant to Article 9 of this Sector Understanding, specifying the nature of the local costs being supported.

## **CHAPTER III: PROCEDURES**

## **9. PRIOR NOTIFICATION**

- a) A Participant shall give prior notification in accordance with Article 48 of the Arrangement at least ten calendar days before issuing any commitment if it intends to provide support in accordance with the provisions of this Sector Understanding.
- b) For projects falling in the Project Classes listed in Appendix II of this Sector Understanding, such notifications shall include an enhanced description of the project in order to demonstrate how the project complies with the criteria for support, as set out in Article 2 b) of this Sector Understanding.
- c) If the notifying Participant intends to provide support with a repayment term in excess of 15 years and/or in accordance with Article 5 c) of this Sector Understanding, it shall wait an additional ten calendar days if any other Participant requests a discussion during the initial ten calendar days.
- d) A Participant shall inform all other Participants of its final decision following a discussion, to facilitate the review of the body of experience.

## CHAPTER IV: MONITORING AND REVIEW

### 10. FUTURE WORK

The Participants agree to examine the following issues in the 12 months following the adoption of this Sector Understanding:

- a) Term-adjusted risk-premia.
- b) Climate change “adaptation” sectors and technologies.
- c) Conditions for low emission/high energy efficiency fossil fuel power plants including definition of CCS-readiness.
- d) Net zero energy buildings.
- e) Smart grids.
- f) Fuel cell projects.

### 11. MONITORING AND REVIEW

- a) The Secretariat shall report annually on the implementation of this Sector Understanding.
- b) The Participants shall regularly review the scope and other provisions of this Sector Understanding and at the latest by the end of 2013.
- c) Appendix II shall be reviewed at regular intervals, including upon the request of a Participant, with the view to assessing whether any Project Class and/or Type should be added to, or removed from, or whether any thresholds should be changed in, that Appendix. Proposals for new Project Classes and/or Types shall be supported by information on how projects within such a Class/Type should fulfil the criteria set out in Article 2 b) of this Sector Understanding and shall follow the methodology set out in Appendix III.

## APPENDIX I: RENEWABLE ENERGIES SECTORS

The following renewable energies sectors shall be eligible for the financial terms and conditions set out in this Sector Understanding provided that their impacts are addressed in accordance with the 2012 Recommendation on Common Approaches on Officially Supported Export Credits and Environmental and Social Due Diligence<sup>1</sup> (as subsequently amended by Members of the OECD Working Group on Export Credits and Credit Guarantee (ECG) and adopted by the OECD Council):

- a) Wind energy<sup>2</sup>.
- b) Geothermal energy.
- c) Tidal and tidal stream power.
- d) Wave power.
- e) Osmotic power.
- f) Solar photovoltaic power.
- g) Solar thermal energy.
- h) Ocean thermal energy.
- i) Bio-energy: all sustainable landfill gas, sewage treatment plant gas, biogas energy or fuel derived from biomass energy installations. "Biomass" shall mean the biodegradable fraction of products, waste and residues from agriculture (including vegetal and animal substances), forestry and related industries, as well as the biodegradable fraction of industrial and municipal waste.
- j) Hydro power.
- k) Energy efficiency in Renewable Energies projects.

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<sup>1</sup> It is understood that the 2012 Recommendation applies equally to projects that are not eligible for these financial terms and conditions.

<sup>2</sup> The maximum repayment term for jack-up rigs used in the installation of wind turbines shall be 12 years.

## APPENDIX II: CLIMATE CHANGE MITIGATION SECTORS

PROJECT CLASS	DEFINITION	RATIONALE	STANDARDS USED	REPAYMENT TERMS
<b>PROJECT CLASS A: CARBON CAPTURE AND STORAGE</b>				
<b>TYPE 1:</b> <b>Fossil Fuel Power Plants with Operational Carbon Capture and Storage (CCS)</b>	A process consisting of the separation of CO <sub>2</sub> stream from the emissions produced by fossil fuel generation sources, transport to a storage site, for the purposes of environmentally safe and permanent geological storage of CO <sub>2</sub> .	To achieve low carbon emission levels for fossil fuel power sources.	Carbon intensity shall achieve a level equal to or less than 350 metric ton CO <sub>2</sub> per GWh vented to atmosphere <sup>1</sup> ; Or In the case of all projects, a capture and storage rate that would reduce the plant's carbon emissions by 65% or greater; Or The capture rate has to be at least 85% of CO <sub>2</sub> emitted by the equipment included in the application for officially supported export credits. The 85% is to apply at normal operating conditions.	18 years

<sup>1</sup> In the case of a plant fuelled by natural gas, significantly lower carbon intensity is expected to be achieved.

PROJECT CLASS	DEFINITION	RATIONALE	STANDARDS USED	REPAYMENT TERMS
<b>PROJECT CLASS A: CARBON CAPTURE AND STORAGE</b>				
<b>TYPE 2: CCS Projects as such</b>	A process consisting of the separation of CO <sub>2</sub> from industrial or energy generation sources, transport to a storage site, for the purposes of environmentally safe and permanent geological storage of CO <sub>2</sub> .	To significantly reduce carbon emissions from existing sources.	In the case of all projects, a capture and storage rate that would reduce the industrial or energy generation carbon emissions by 65% or greater;  Or  The capture rate has to be at least 85% of CO <sub>2</sub> emitted by the equipment included in the application for officially supported export credits. The 85% is to apply at normal operating conditions.	18 years

PROJECT CLASS	DEFINITION	RATIONALE	STANDARDS USED	REPAYMENT TERMS
<b>PROJECT CLASS B: FOSSIL FUEL SUBSTITUTION</b>				
<b>TYPE 1: Waste to Energy</b>	Unit dedicated to generating energy by thermal treatment (including gasification) of mixed stream solid waste.	To offset GHG emissions from the use of conventional power and by reducing future GHG such as methane that would normally emanate from the waste.	In the case of a steam cycle, a boiler (or steam generator) energy conversion efficiency of at least 75 % based on low heating value (LHV) <sup>2</sup> .  In the case of gasification, a gasifier efficiency of at least 65% LHV <sup>3</sup> .	15 years

<sup>2</sup> Boiler (or steam generator) energy conversion efficiency = (Net heat exported by the steam / heat or calorific value [LHV] provided by the fuel) (x 100%).

<sup>3</sup> Gasifier efficiency = (Calorific value of gas per kg of fuel used / average net calorific value (LHV) of one kg of fuel) (x 100%).

PROJECT CLASS	DEFINITION	RATIONALE	STANDARDS USED	REPAYMENT TERMS
<b>PROJECT CLASS B: FOSSIL FUEL SUBSTITUTION</b>				
<b>TYPE 2:</b> <b>Hybrid Power Plants</b>	A power plant that generates electric power from both a renewable energy source and a fossil fuel source.	To meet the requirement of plant availability, a fossil fuel generating source is required for those periods when power from the renewable energy source is not available or sufficient. The fossil fuel source enables the usage of renewable energy in the hybrid plant, thereby achieving a significant carbon reduction compared with standard fossil fuel plant.	Model 1: Two separate generation sources: one Renewable Energy and one fossil fuel. Project shall be designed such that at least 50% of its projected total annual energy output originates from the plant's renewable energy source. Model 2: Single generation source using the combination of renewable and fossil fuel. The project shall be designed such that at least 75% of the useful energy produced is derived from the renewable source.	15 years

PROJECT CLASS	DEFINITION	RATIONALE	STANDARDS USED	REPAYMENT TERMS
<b>PROJECT CLASS C: ENERGY EFFICIENCY</b>				
<b>TYPE 1: Combined Heat &amp; Power projects</b>	<p>Simultaneous generation of multiple forms of energy (electrical, mechanical and thermal) in a single integrated system.</p> <p>Output of the CHP plant shall include electric or mechanical energy and heat for commercial industrial and/or residential use.</p>	<p>Up to two thirds of the primary energy used to generate electricity in conventional thermal power plants is lost in the form of heat. Combined heat and power (CHP) generation can therefore be an effective GHG mitigation option. CHP is possible with all heat machines and fuels (including biomass and solar thermal) from a few kW-rated to 1000MW steam-condensing power plants<sup>4</sup>.</p>	<p>Overall efficiency of at least 75% based on low heating value (LHV)<sup>5</sup>.</p>	15 years

<sup>4</sup> IPCC Fourth Assessment Report: Climate Change 2007, [http://www.ipcc.ch/publications\\_and\\_data/ar4/wg3/en/ch4s4-3-5.html](http://www.ipcc.ch/publications_and_data/ar4/wg3/en/ch4s4-3-5.html)

<sup>5</sup> The total system efficiency ( $\eta_o$ ) of a CHP system is the sum of the net useful power output ( $W_E$ ) and net useful thermal outputs ( $\Sigma Q_{TH}$ ) divided by the total fuel input ( $Q_{FUEL}$ ), as shown below:

$$\eta_o = \frac{W_E + \Sigma Q_{TH}}{Q_{FUEL}}$$

PROJECT CLASS	DEFINITION	RATIONALE	STANDARDS USED	REPAYMENT TERMS
<b>PROJECT CLASS C: ENERGY EFFICIENCY</b>				
<b>TYPE 2:</b> <b>District heating and/or cooling</b>	Network which carries/distributes thermal energy from energy producing unit to end use.	<p>To improve the efficiency of heating of districts by building piping networks for steam and/or hot water with substantial thermal efficiency, both by minimising losses of piping and converters, and by increasing the amount of utilisation of waste heat.</p> <p>District cooling is an integrative technology that can make significant contributions to reducing emissions of carbon dioxide and air pollution and to increasing energy security <i>e.g. via</i> substitution of individual air-conditioners.</p>	The district piping thermal conductivity shall be less than 80% of the relevant thermal conductivity required by the European standard EN253:2009 ( <i>to be reviewed when this standard is updated</i> ).	15 years

**APPENDIX III: METHODOLOGY TO BE USED WHEN DETERMINING  
THE ELIGIBILITY OF SECTORS RELATING TO ARTICLE 2  
OF THIS SECTOR UNDERSTANDING**

When proposing that Project Class or Type be added to Appendix II of this Sector Understanding, Participants shall provide a detailed description of the proposed Project Class or Type and information on how such projects fulfil the criteria set out in Article 2 b) of this Sector Understanding; such information shall include:

- a) An evaluation of the direct contribution of the Project Class or Type to climate change mitigation, including a comparison of the sector performance, based on measurable data regarding carbon emissions or CO<sub>2</sub> equivalent and/or in high energy efficiency, with conventional and in-use newer technological approaches; this comparison shall, in all cases, be based on quantitative measures, such as a decrease in emissions per unit produced.
- b) A description of the technical and performance standards of the Project Class or Type proposed sector, including information on any relevant, existing Best Available Techniques (BAT); if appropriate, this description shall explain how the technology is an improvement on the existing BAT.
- c) A description of the financial barriers in the proposed Project Class or Type, including any financial needs and market conditions, and identify the provisions under this Sector Understanding that are expected to enable such projects to proceed.

#### APPENDIX IV: LIST OF DEFINITIONS

**Best Available Techniques:** as per the definition of EU Directive 96/61/EC (Article 2.1), "Best Available Techniques" shall mean the most effective and advanced stage in the development of activities and their methods of operation which indicate the practical suitability of particular techniques for providing in principle the basis for emission limit values designed to prevent and, where that is not practicable, generally to reduce emissions and the impact on the environment as a whole:

- a) "techniques" shall include both the technology used and the way in which the installation is designed, built, maintained, operated and decommissioned.
- b) "available" techniques shall mean those developed on a scale which allows implementation in the relevant industrial sector, under economically and technically viable conditions, taking into consideration the costs and advantages, whether or not the techniques are used or produced inside the Member State in question, as long as they are reasonably accessible to the operator.
- c) "best" shall mean most effective in achieving a high general level of protection of the environment as a whole.

**Greenhouse Gases:** greenhouse gases are defined to include carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons and sulphur hexafluoride.

**Large Hydro Power Project:** as per the definition of the International Commission on Large Dams (ICOLD). ICOLD defines a large dam as a dam with a height of 15m or more from the foundation. Dams that are between 5 and 15m high and have a reservoir volume of more than 3 million m<sup>3</sup> are also classified as large dams.