

Room Document No. 11

Informal Meeting on Export Credits and Climate Change Issues

DATA ON EXPORT CREDIT SUPPORT FOR FOSSIL FUEL POWER PLANTS AND FOSSIL FUEL EXTRACTION PROJECTS

Secretariat

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**DATA ON EXPORT CREDIT SUPPORT FOR FOSSIL FUEL POWER PLANTS AND
FOSSIL FUEL EXTRACTION PROJECTS****SECRETARIAT****Introduction**

1. This document provides information on the volume of export credit support provided by Members for projects¹ related to either (1) fossil-fuel electric power generation or (2) the extraction of fossil fuels between 2003 and 2013. Additional detail is provided on projects related to coal, including projects found during the course of our research that have been supported by Members' Export Credit Agencies (ECAs) on other than Arrangement terms (*e.g.* market window export credit loans, untied export credit loans, insurance and guarantees, political risk investment guarantees, etc.). This information has been compiled to provide Members with context for their discussions on export credits and climate change.

Data Sources/Limitations and Methodology

2. The data on Arrangement export credit support for fossil-fuel electric power generation and the extraction of fossil fuels has been taken from the "Export Credits Individual Transactions" database that comprises official export credits reported by Members (in the main *via* Form 1C and XCR1 submissions) with a repayment term of two years or more. The data is limited to what has actually been reported by Members, and although it is possible that some transactions supported by Members could be missing from the data set², a considerable amount of additional work (*i.e.* beyond the standard review of the data) has been undertaken so as to provide accurate figures in this area. In the first instance, this comprised the identification of the power station for which the support was provided (this information was often not provided in Members' submissions).

3. In order to show the type of analysis that could be provided with complete information on basic aspects of a power plant, additional information was collected for coal-fired power electric power generation projects using all available sources (including from details provided in *ex-ante* notifications, form 1C/XCR1 submissions, Category A/B reports and internet research). This information comprised:

- The technology used to generate electricity (for coal-fired power stations, whether sub-critical, super-critical or ultra-super-critical technology was used).
- The primary fuel for the power station (for coal-fired power stations, the type of coal).
- Whether the project was new (greenfield), an extension to provide additional installed capacity, or a rehabilitation/enhancement/refurbishment (*e.g.* the installation of scrubbers on an existing power station or the replacement of old equipment).
- The total installed capacity of the power station for which export credit support was provided (often this is provided in the description of the project provided in Members' submissions).

¹ The term project is used in this document for simplicity, however it should be noted that the data also includes transactions supporting the export of goods and services that may not be related to a specific project.

² According to the Secretariat's records, 2013 individual transaction reporting looks to be complete, however, during the process of reviewing and correcting the transaction-level data submissions from Members, the Secretariat regularly identifies missing transactions that should have been reported, or transactions with project descriptions that did not allow for the correct assignment of a sector code.

CONFIDENTIAL

Room Document No. 11

Informal Meeting on Climate Change Issues
9 October 2014

- The additional installed capacity relating to the project financed (this would be the entire installed capacity of a new plant, or zero in the case of a rehabilitation).
- The total capital investment needed to build the project.
- The status of the project (*i.e.* operational, under construction).

4. With this information, it was possible to calculate for each project (for which complete information was obtained) the share of the total capital investment support by the export credit financing and the additional installed capacity notionally attributable to the financing. Clearly, the accuracy of these calculations depends on having the correct value for the total capital investment; given that this information was obtained from public sources *via* the internet, it is likely that the accuracy of the figures presented could be improved. Accordingly, the information presented on the share of the total capital investment support by the export credit financing and the additional installed capacity notionally attributable to the financing should be considered as “illustrative” at this stage.

5. In addition, the actual power station could not be identified for approximately USD 165.2 million (out of 12.8 billion) of Arrangement export credit support (credit value) reported by Members. Although the figures presented in respect of the items listed above are incomplete, the volume of unidentified credits is statistically insignificant (1.3% of total credit value supported).

6. With respect to the information presented on non-Arrangement ECA support, the primary source of information was the internet (usually the web site of the ECA). As was the case for installed capacity and total capital investment, it was impossible to verify the absolute accuracy of the figures on the amount of financing obtained, and it is likely that they could be improved. It should also be noted that the universe of transactions identified is probably not complete and the figures presented should also be considered to be illustrative.

Statistical Highlights

7. **Tables 1 and 2** provide an overview on the volume (in terms of credit value) of Arrangement export credit support provided by Members during the period for projects related to fossil-fuel electric power generation or the extraction of fossil fuels

**Table 1 – Arrangement Export Credit Support for Fossil-Fuel Electric Power Generation
2003-2013 (USD millions)**

Type of Electric Power Plant	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Coal-Fired Electric Power Plants	1,439.7	992.4	125.1	323.9	114.7	1,766.3	606.7	1,250.9	2,525.0	2,237.7	1,460.8	12,843.2
Technology Not Identified	131.1	638.1	62.7	21.2	29.4	-	17.2	60.8	65.6	6.7	91.5	1,124.3
Sub-Critical	1,308.6	-	62.4	302.8	85.3	739.7	120.0	-	549.6	608.0	686.2	4,462.5
Super-Critical	-	354.3	-	-	-	1,026.7	469.5	1,190.1	1,909.7	1,623.0	683.1	7,256.4
Ultra-Super-Critical	-	-	-	-	-	-	-	-	-	-	-	0.0
Oil-Fired Electric Power Plants (Diesel)	106.4	295.6	49.1	56.7	6.6	240.1	188.9	442.5	989.1	1,632.8	0.9	4,008.7
Natural Gas-Fired Electric Power Plants	2,498.7	1,283.8	1,097.3	410.9	351.2	1,035.7	2,445.2	2,827.4	1,618.8	1,434.2	1,635.0	16,638.2
Technology Not Identified	835.2	480.5	483.2	241.6	21.0	544.4	806.7	304.0	1,182.5	167.1	181.7	5,247.9
Open Cycle	167.3	95.0	-	-	-	-	-	-	-	-	340.4	602.7
Combined Cycle	1,496.2	708.3	614.1	169.3	330.2	491.3	1,638.6	2,523.4	436.3	1,267.2	1,112.9	10,787.6
Fossil Fuel Electric Power Plants (Fuel Not Identified)	137.3	573.1	42.8	96.4	200.0	394.7	34.1	195.3	33.1	755.6	234.4	2,696.9
Total	4,182.1	3,144.8	1,314.2	888.0	672.5	3,436.8	3,275.0	4,716.1	5,166.0	6,060.3	3,331.1	36,187.0

**Table 2 – Arrangement Export Credit Support for the Extraction of Fossil Fuels
2003-2013 (USD millions)**

Fossil Fuel Extraction	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Coal	39.6	41.9	74.9	14.2	88.9	82.2	428.3	335.0	258.4	266.4	122.8	1,752.5
Oil & Gas	2,306.1	4,233.9	3,473.0	2,217.5	725.4	3,498.2	6,261.6	11,815.8	5,059.6	4,104.0	7,164.8	50,860.0
<i>Exploration</i>	35.4	68.8	89.7	36.0	-	6.7	-	-	164.8	525.0	19.9	946.3
<i>Oil & Gas Field Development</i>	961.2	2,262.6	1,381.4	1,319.3	468.3	2,493.2	3,431.5	9,255.3	4,651.8	3,147.9	6,040.0	35,412.6
<i>Pipeline</i>	76.0	862.7	45.1	137.2	-	11.7	2,830.1	2,490.6	111.0	-	146.7	6,711.1
<i>Storage</i>	1.1	-	11.6	-	109.5	-	-	-	0.8	-	-	123.1
<i>Transport</i>	1,232.4	1,039.8	1,945.2	725.0	147.6	966.6	-	-	131.1	406.8	672.3	7,286.8
<i>Not Identified</i>	-	-	-	-	-	-	-	70.0	-	24.4	265.8	380.2
Total	2,345.7	4,275.7	3,548.0	2,231.7	814.3	3,580.4	6,689.9	12,150.8	5,318.0	4,370.4	7,287.6	52,612.5

8. Table 1 shows that coal-fired power plants accounted for more than one-third of the support provided, whereas Table 2 shows that support for coal mining (USD 1.75 billion) pales in comparison with the volume of support provide for oil and gas projects USD 50.86 billion).

9. **Tables 3 and 4** provide information on the volume of Arrangement export credit support for coal-related projects by Member. Table 3 shows that only 12 members provided support for coal-fired power plants during the period and that five of them (Korea, Japan, France, the United States and Germany) accounted for almost all (93.5%) of support provided in terms of credit value. Table 4 highlights the prominence of one Member (Germany with 61% of all activity) amongst the ten that provided support for coal mining projects³ during the period.

**Table 3 – Arrangement Export Credit Support for Coal-Fired Electric Power Generation by Member
2003-2013 (USD millions)**

Member Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Czech Republic	-	-	15.4	0.9	-	-	17.2	-	453.8	-	-	487.2
France	-	-	-	100.1	29.4	-	-	-	914.1	722.4	83.1	1,849.1
Germany	0.5	-	8.8	201.8	9.1	-	469.5	28.7	50.2	87.9	208.8	1,065.4
Italy	-	-	-	-	-	-	120.0	5.8	-	-	-	125.8
Japan	1,409.2	638.1	62.4	-	-	64.7	-	299.2	299.0	493.0	-	3,265.6
Korea	-	354.3	-	-	-	1,701.7	-	-	-	933.7	1,110.0	4,099.6
Luxembourg	-	-	-	-	-	-	-	-	-	-	52.6	52.6
Slovak Republic	29.9	-	-	-	60.7	-	-	-	-	-	6.3	96.9
Spain	-	-	-	-	-	-	-	-	-	0.6	-	0.6
Sweden	-	-	38.5	21.2	15.6	-	-	-	-	-	-	75.3
Switzerland	-	-	-	-	-	-	-	-	2.3	-	-	2.3
United States	-	-	-	-	-	-	-	917.1	805.6	-	-	1,722.7
TOTAL	1,439.7	992.4	125.1	323.9	114.7	1,766.3	606.7	1,250.9	2,525.0	2,237.7	1,460.8	12,843.2

³ There are a large number of export credit transactions in the data set related to the export of mining equipment for which the type of mine is not provided; some of these transactions (with a credit value of approximately USD 829 million) could be related to coal mining.

CONFIDENTIAL

Room Document No. 11

Informal Meeting on Climate Change Issues
9 October 2014

**Table 4 – Arrangement Export Credit Support for the Coal Mining by Member
2003-2013 (USD millions)**

Member Country	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Australia	-	-	12.7	-	-	-	149.6	-	-	-	-	162.3
Austria	-	-	-	-	-	-	-	8.2	5.4	-	-	13.6
Czech Republic	-	-	-	-	-	-	48.8	11.4	52.8	50.1	48.7	211.8
France	-	-	-	-	-	-	-	3.0	61.1	-	-	64.1
Germany	16.9	27.0	43.2	14.2	88.9	82.2	221.9	248.1	133.0	122.9	70.7	1,068.9
Japan	-	-	-	-	-	-	-	49.9	-	-	-	49.9
Poland	-	5.1	7.7	-	-	-	-	-	-	19.3	0.9	32.9
Sweden	-	-	-	-	-	-	-	0.3	-	1.8	-	2.1
United Kingdom	-	-	-	-	-	-	-	-	6.0	-	-	6.0
United States	22.6	9.8	11.5	-	-	-	8.1	14.1	-	72.3	2.4	140.8
TOTAL	39.6	41.9	74.9	14.2	88.9	82.2	428.3	335.0	258.4	266.4	122.8	1,752.5

10. **Tables 5 and 6** provide information on the volume of Arrangement export credit support for coal-related projects by destination (project) country. With respect to coal-fired power plants, Asia accounted for the majority of activity (56.8% by credit value). Africa appears as the second most important region due to the provision of support for two large projects (Medupi and Kusile) with a credit value of almost USD 3 billion in South Africa. Support for coal mining projects was concentrated in Asia and Europe, with the Russian Federation alone accounting for almost one third of all activity during the period.

**Table 5 – Arrangement Export Credit Support for Coal-Fired Electric Power Generation by Destination Country
2003-2013 (USD millions)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Africa	0.0	0.0	0.0	0.0	0.0	0.0	469.5	0.0	1,719.7	1,408.1	83.1	3,680.4
Morocco	-	-	-	-	-	-	-	-	-	685.7	-	685.7
South Africa	-	-	-	-	-	-	469.5	-	1,719.7	722.4	83.1	2,994.8
Americas	40.1	0.0	24.2	0.0	0.0	675.0	120.0	305.0	15.4	6.7	6.3	1,192.7
Brazil	-	-	8.8	-	-	-	-	-	-	-	-	8.8
Chile	-	-	-	-	-	675.0	120.0	-	-	-	-	795.0
Cuba	29.9	-	-	-	-	-	-	-	-	-	6.3	36.2
Mexico	10.2	-	-	-	-	-	-	305.0	15.4	6.7	-	337.3
Venezuela	-	-	15.4	-	-	-	-	-	-	-	-	15.4
Asia	1,308.6	762.7	100.9	21.2	114.7	1,091.3	0.0	917.1	789.9	822.9	1,371.4	7,300.7
Chinese Taipei	-	-	-	21.2	-	-	-	-	-	-	-	21.2
India	-	354.3	38.5	-	-	1,026.7	-	917.1	190.0	214.9	52.6	2,794.0
Indonesia	1,217.6	-	-	-	29.4	-	-	-	-	-	-	1,247.0
Israel	-	-	-	-	-	-	-	-	-	-	176.2	176.2
Kazakhstan	-	-	-	-	-	-	-	-	-	-	32.7	32.7
Philippines	91.0	-	-	-	-	-	-	-	-	-	-	91.0
Thailand	-	408.5	-	-	-	-	-	-	-	-	-	408.5
Turkey	-	-	-	-	85.3	-	-	-	453.8	608.0	-	1,147.1
Viet Nam	-	-	62.4	-	-	64.7	-	-	146.0	-	1,110.0	1,383.1
Europe	91.0	229.7	0.0	302.8	0.0	0.0	17.2	28.7	0.0	0.0	0.0	669.3
Bulgaria	-	229.7	-	302.8	-	-	-	-	-	-	-	532.4
Romania	91.0	-	-	-	-	-	-	-	-	-	-	91.0
Serbia	-	-	-	-	-	-	-	28.7	-	-	-	28.7
Ukraine	-	-	-	-	-	-	17.2	-	-	-	-	17.2
Oceania	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total All Countries	1,439.7	992.4	125.1	323.9	114.7	1,766.3	606.7	1,250.9	2,525.0	2,237.7	1,460.8	12,843.2

**Table 6 – Arrangement Export Credit Support for the Coal Mining by Destination Country
2003-2013 (USD millions)**

	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013	Total
Africa	-	-	-	-	-	-	-	-	-	7.8	-	7.8
South Africa	-	-	-	-	-	-	-	-	-	7.8	-	7.8
Americas	0.0	0.0	0.0	0.0	0.0	0.0	0.0	160.8	0.0	19.3	2.4	182.5
Chile	-	-	-	-	-	-	-	-	-	-	2.4	2.4
Mexico	-	-	-	-	-	-	-	-	-	19.3	-	19.3
United States	-	-	-	-	-	-	-	160.8	-	-	-	160.8
Asia	5.4	7.3	17.9	0.0	0.0	43.4	157.7	81.6	53.6	0.0	70.7	437.6
Cyprus	-	-	-	-	-	-	-	0.9	-	-	-	0.9
Indonesia	-	-	-	-	-	-	157.7	64.0	53.3	-	-	274.9
Kazakhstan	5.4	-	6.2	-	-	43.4	-	16.7	0.4	-	61.6	133.7
Philippines	-	7.3	11.7	-	-	-	-	-	-	-	-	18.9
Turkey	-	-	-	-	-	-	-	-	-	-	9.1	9.1
Europe	22.6	34.6	22.0	14.2	88.9	38.8	270.7	92.5	122.0	132.2	49.7	888.2
Czech Republic	-	-	-	-	-	-	194.0	-	-	-	-	194.0
Former Yugoslav Republic of Macedonia	-	-	-	-	20.1	-	-	-	21.1	-	-	41.2
Italy	-	-	-	-	-	-	-	0.3	-	-	-	0.3
Russian Federation	22.6	34.6	22.0	14.2	68.8	38.8	42.7	92.2	87.4	132.2	14.8	570.5
Ukraine	-	-	-	-	-	-	34.0	-	13.5	-	34.9	82.3
Oceania	11.6	-	35.1	-	-	-	-	-	82.7	107.0	-	236.4
Australia	11.6	-	35.1	-	-	-	-	-	82.7	107.0	-	236.4
Total All Countries	39.6	41.9	74.9	14.2	88.9	82.2	428.3	335.0	258.4	266.4	122.8	1,752.5

11. **Table 7** provides a listing of all coal-fired electric power generation projects supported by Members on Arrangement terms during the period covered. Of the total volume of Arrangement export credit support provided, 37 projects with a credit value of approximately USD 12.7 billion were identified.

12. With respect to the fuel source (type of coal), the Secretariat was able to identify:

- five power plants fuelled by **lignite** with a credit value of USD 1.6 billion,
- three power plants fuelled by **sub-bituminous coal** with a credit value of USD 2.6 billion,
- four power plants fuelled by **bituminous coal** with a credit value of USD 3.5 billion, and
- four power plants fuelled by **anthracite** with a credit value of USD 364 million.

13. The type of coal used to fuel the remaining 21 power plants could not be identified.

14. With respect to coal technology, the Secretariat was able to identify:

- 14 power plants with a credit value of USD 4.5 billion that use **sub-critical** boiler technology, and
- 11 power plants with a credit value of USD 7.3 billion that use **super-critical** boiler technology.

15. The type of technology could not be identified for the remaining 12 power plants (USD 908 million).

16. With respect to the installed capacity of the power plants in the data set, the information obtained by the Secretariat implies that:

- The installed capacity of identified coal-fired power plants that were **either entirely or partially financed** by Arrangement export credits during the period (including refurbishments, etc.) amounted to **45.2 gigawatts**.

- The **net increase** in installed capacity of identified coal-fired power plants that were **either entirely or partially financed** by Arrangement export credits during the period (including refurbishments, etc.) amounted to **42.0 gigawatts**.
- The **net increase** in installed capacity of identified coal-fired power plants that is **directly attributable to Arrangement export credit financing** during the period amounted to **13.3 gigawatts**.

17. With these figures in hand, it is possible to have a general idea of the role of export credits in financing coal-fired power plants:

- According to historical figures from the U.S. Energy Information Administration (EIA), the average annual increase in installed capacity related to coal-fired power plants between 2005 and 2012 was approximately **64.3 gigawatts per year**.
- The average annual newly-installed capacity of identified coal-fired power plants that were **either entirely or partially financed** by Arrangement export credits between 2005 and 2012 was **3.5 gigawatts**, and the “directly attributable” (see the bullet 3 of paragraph 16 above) average was **0.86 gigawatts**.

18. If these figures are compared, the role of Arrangement export credit financing appears to be marginal; even if the entire installed capacity of all coal-fired power plants that were in some part financed by Arrangement export credits is taken as the numerator, Arrangement-financed coal-fired power plants would account for around 5.4% of average annual new installed capacity. If the “directly attributable” figure is used, the Arrangement portion would be reduced to 1.35%.

**Table 7 - Coal-Fired Electric Power Generation Projects with Arrangement Export Credit Financing
2003-2013**

Name of the Project	Destination Country	Support Provided by	Year	Product(s) and/or Services Exported	Technology	Primary Fuel	Project Type	Installed Capacity of the Power Plant (MW)	Net Increase in Installed Capacity of the Power Plant (MW)	Credit Value in USD millions	Estimated Portion of Total Financing for Project Related to the Export Credit Transactions	Estimated Additional Installed Capacity Attributable to the Export Credit Transactions	Project Status
not identified	Brazil	Germany	2005	direct-fired coal mill	unknown	coal (type unknown)	unknown	unknown	unknown	8.8	unknown	unknown	unknown
Maritza East 1 Power Station	Bulgaria	Czech Republic, France, Germany	2006	chimney fan and electrofilter of a heat power plant	sub-critical	coal (lignite)	new	600	600	302.8	30.0%	180.0	operational
Maritza East 2 Thermal Power Plant Rehabilitation (2004)	Bulgaria	Japan	2004	rehabilitation of turbines and generators and installation of Flue Gas Desulfurization plant on turn-key basis, as per technical specification of engineering, procurement and construction of a 370 MW coal fired thermal power plant	unknown	coal (lignite)	existing, positive material change	1,465	0	229.7	51.5%	0.0	operational
Santa Maria Power Station	Chile	Italy	2009	construction of the coal-fired power plant in Antofagasta, Chile (462MW : 231MW, 2 units)	sub-critical	coal (type unknown)	new	370	370	120.0	16.7%	61.7	operational
Angamos Coal-Fired Power Plant	Chile	Korea	2008	supply and installation of equipment for two power plant units within the scope of the realisation of a coal-fired steam power plant	sub-critical	coal (bituminous & sub-bituminous)	new	544	544	675.0	51.9%	282.5	operational
Waigaoqiao Coal-Fired Power Plant (Phase II)	China	Germany	2000	instalation of a screw conveyor for unloading of coal from offshore vessels to a powerplant in Taiwan	super-critical	coal (type unknown)	new	1,800	1,800	93.6	5.2%	93.6	operational
not identified	Chinese Taipei	Sweden	2006	modernization of the control system of the operating power plant	unknown	coal (type unknown)	existing, positive material change	unknown	unknown	21.2	unknown	unknown	operational
Nuevas Block VI Modernization	Cuba	Slovak Republic	2013	modernisation of the thermal power plant in the Moa nickel mill	unknown	coal (type unknown)	existing, positive material change	125	0	6.3	85.0%	0.0	unknown
Moa Nickel Mill Power Plant Modernisation	Cuba	Slovak Republic	2003	export of steam turbine generator package and boiler feed water pumps for the new supercritical 4,000 MW coal-fired power plant	unknown	coal (type unknown)	new	2,400	2,400	91.4	26.1%	626.5	under construction
Kudgi Super-Critical Thermal Power Plant	India	Luxembourg	2013	delivery of goods and services for a pulverized coal injection system for a blast furnace	unknown	coal (type unknown)	unknown	unknown	unknown	52.6	unknown	unknown	unknown
Orissa Integrated Power and Steel Plant (Phase VI)	India	Germany	2012	turbine generator and boiler	super-critical	coal (type unknown)	new	1,320	1,320	87.9	7.8%	102.5	under construction
Barh Super Thermal Power Station (Stage II)	India	Japan	2012	turbine generator and boiler	super-critical	coal (type unknown)	new	1,400	1,400	126.9	80.0%	1,120.0	partially operational (1 of two units)
Rajpura Thermal Power Plant	India	Japan	2011	coal mining equipment and contract services (draglines, mining trucks, mining shovels, mine and power plant engineering design)	super-critical	coal (type unknown)	new	1,320	1,320	190.0	80.2%	1,058.6	partially operational (1 of two units)
Jaypee Nigrie Super Thermal Power Project	India	United States	2010	EPC supply for supercritical boiler	super-critical	coal (sub-bituminous)	new	3,960	3,960	917.1	22.2%	879.5	under construction
Sasan Ultra Mega Power Project	India	Korea	2008	turnkey supply of transformers	unknown	coal (type unknown)	unknown	unknown	unknown	38.5	85.0%	unknown	operational
Mundra Ultra Mega Power Plant	India	Korea	2004	steam generators for thermal power plant	super-critical	coal (type unknown)	new	1,980	1,980	354.3	100.0%	1,980.0	operational
not identified	India	Sweden	2005	steam generators for thermal power plant	super-critical	coal (type unknown)	new	1,980	1,980	354.3	100.0%	1,980.0	operational
Sipat Super Thermal Power Project (Stage I)	India	Korea	2004	turnkey supply of transformers	unknown	coal (type unknown)	unknown	unknown	unknown	38.5	85.0%	unknown	operational

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Table 7 (continued) - Coal-Fired Electric Power Generation Projects with Arrangement Export Credit Financing 2003-2013

Name of the Project	Destination Country	Support Provided by	Year	Product(s) and/or Services Exported	Technology	Primary Fuel	Project Type	Installed Capacity of the Power Plant (MW)	Net Increase in Installed Capacity of the Power Plant (MW)	Credit Value in USD millions	Estimated Portion of Total Financing for Project Related to the Export Credit Transactions	Estimated Additional Installed Capacity Attributable to the Export Credit Transactions	Project Status
Ngimbang and Ungaran Power Stations	Indonesia	France	2007	building (keys in hands) of 2 power stations 500/150 KV : NGIMBANG et UNGARAN & extension of 9 conventional stations 150 KV & substations	unknown	coal (type unknown)	existing, potentially negative material change	unknown	unknown	29.4	unknown	unknown	unknown
Tanjung Jati B Power Station	Indonesia	Japan	2003	establishment of two 660 MW coal fired power plants	sub-critical	coal (type unknown)	new	1,320	1,320	1,217.6	72.2%	953.3	operational
not identified	Iran	Spain	2002	supply of eight boiler plants to be installed	unknown	coal (type unknown)	unknown	unknown	unknown	22.4	85.0%	unknown	unknown
Orot Rabin Power Plant Retrofit (2013)	Israel	Germany	2013	engineering and delivery of 6 flue gas denitrification plants for 6 existing coal power plants	sub-critical	coal (type unknown)	existing, positive material change	1,400	0	176.2	109.6%	0.0	unknown
not identified	Kazakhstan	Germany	2013	[not provided]	unknown	coal (type unknown)	unknown	unknown	unknown	32.7	unknown	unknown	unknown
Carbon III Power Plant	Mexico	Spain	2012	heating elements bound to the Central Thermal Carbon III	unknown	coal (type unknown)	new	unknown	unknown	0.6	unknown	unknown	operational
Japan-CFE Unidentified Supply to Existing Coal-Fired Power Plant (2012)	Mexico	Japan	2012	supply of machinery for the existing thermal power plant	unknown	coal (type unknown)	unknown	unknown	unknown	6.0	85.0%	unknown	unknown
not identified	Mexico	Switzerland	2011	spare parts for thermal power plant	unknown	coal (type unknown)	unknown	unknown	unknown	2.3	86.8%	unknown	unknown
Japan-CFE 2010/11 Line of Credit (Involving Coal-Fired Power Plants)	Mexico	Japan	2010	parts and services for coal fired power plant	unknown	coal (type unknown)	unknown	unknown	unknown	39.3	85.0%	unknown	unknown
Pacifico Coal Thermal Power Plant Expansion	Mexico	Japan	2010	supply of boiler and turbine for coal-fired power plant construction	super-critical	coal (type unknown)	existing, potentially negative material change	651	651	273.0	44.7%	290.7	under construction
Petalcalco Power Station (2010)	Mexico	Italy	2010	ashes extraction and transportation system relating to the boilers of a thermoelectric power plant	unknown	coal (type unknown)	unknown	unknown	unknown	5.8	112.4%	unknown	unknown
Japan-CFE 2003 Line of Credit (Involving Coal-Fired Power Plants)	Mexico	Japan	2003	supervisory service and equipment for a confirmation test of a coal-fired power plants	unknown	coal (type unknown)	unknown	unknown	unknown	9.7	80.6%	unknown	unknown
not identified	Mexico	Germany	2003	electronic equipment for a coal-fired power station	unknown	coal (type unknown)	unknown	unknown	unknown	0.5	85.0%	unknown	unknown
not identified	Mexico	Denmark	2001	equipment and components for two stacker and reclaimers lines	unknown	coal (type unknown)	unknown	unknown	unknown	1.5	89.5%	unknown	unknown
Termoelectrica del Golfo TEG II	Mexico	France	2000	finalisation of 260MW thermal power plant with circulating fluid bed generators	unknown	coal (type unknown)	new	260	260	181.3	49.1%	127.8	operational
Jorf Lasfar Expansion Unit 5&6 Project	Morocco	Japan, Korea	2012	coal-fired power plant EPC package; Morocco Jorf Lasfar Expansion Unit 5&6 Project / equipments of coal-fired power plants	super-critical	coal (type unknown)	existing, potentially negative material change	700	700	685.7	42.9%	300.0	operational
Mindanao Coal Fired Power Plant	Philippines	Japan	2003	purchase of boilers, turbines, etc.	unknown	coal (type unknown)	new	210	210	91.0	29.8%	62.7	operational
Paroseni Coal-Fired Power Plant Modernization (2003)	Romania	Japan	2003	rehabilitation of a thermal power plant (flue gas desulphurization implementation at unit no.4 of 150 MW capacity)	sub-critical	coal (hard)	existing, positive material change	150	0	91.0	89.2%	0.0	operational

Table 7 (continued) - Coal-Fired Electric Power Generation Projects with Arrangement Export Credit Financing 2003-2013

Name of the Project	Destination Country	Support Provided by	Year	Product(s) and/or Services Exported	Technology	Primary Fuel	Project Type	Installed Capacity of the Power Plant (MW)	Net Increase in Installed Capacity of the Power Plant (MW)	Credit Value in USD millions	Estimated Portion of Total Financing for Project Related to the Export Credit Transactions	Estimated Additional Installed Capacity Attributable to the Export Credit Transactions	Project Status
not identified	Serbia	Germany	2010	equipment for a coal-fired power station	unknown	coal (type unknown)	unknown	unknown	unknown	28.7	80.0%	unknown	unknown
Kusile Power Station	South Africa	France, United States	2012	design, manufacture, delivery and assembly of the 6 turbine subunits of the KUSILE coal-fired power plant	super-critical	coal (bituminous)	new	4,770	4,770	1,611.1	8.5%	404.5	under construction
Medupi Power Station	South Africa	France, Germany	2011	design, manufacturing, delivery and assembly of the 6 turbine sub-units of MEDUPI coal-fired power	super-critical	coal (bituminous)	new	4,770	4,770	1,383.6	8.2%	388.8	under construction
BLCF Power Project	Thailand	Japan	2004	equipment and services for a coal-fired power plant	unknown	coal (bituminous)	new	1,434	1,434	408.5	38.4%	551.0	operational
Tufanbeyli Power Project	Turkey	Korea	2012	the Power Plant is a 3x150MW lignite-fired CFB-based power generation project with selective non-	sub-critical	coal (lignite)	new	450	450	608.0	64.7%	291.2	under construction
Yunus Emre Power Station	Turkey	Czech Republic	2011	equipment and systems required to produce electricity by using a steam-generating boiler fired with	sub-critical	coal (lignite)	new	290	209	453.8	75.6%	158.1	under construction
Seydisehir Coal-fired Power Plant	Turkey	Slovak Republic	2007	supply and installation of a circulating fluidized bed boiler (CFB) for a coal/lignite-fired power plant at	sub-critical	coal (lignite)	new	13	13	22.0	92.1%	12.0	operational
ZETES-1 Coal-Fired Power Station	Turkey	Germany, Slovak Republic, Sweden	2007	diverse machinery and plants for a coal fired power station	sub-critical	coal (bituminous)	new	160	160	63.3	92.1%	147.3	operational
not identified	Turkey	France	2001	construction of a coal-fired power plant	unknown	coal (type unknown)	unknown	unknown	unknown	106.0	unknown	unknown	unknown
Afsin Elbistan "B" Thermal Power Plant	Turkey	France, Japan	2000	equipment and services for the electrical power plant of ALSIN ELBISTAN "B"	sub-critical	coal (lignite)	new	1,440	1,440	683.1	42.2%	607.2	operational
not identified	Turkey	Germany	2000	equipment for a coal power station	unknown	coal (type unknown)	unknown	unknown	unknown	19.2	unknown	unknown	unknown
not identified	Turkey	Spain	2000	(2) thermal boilers	unknown	coal (type unknown)	unknown	unknown	unknown	57.6	85.0%	unknown	operational
Sugozu Power Station	Turkey	Austria, Germany	2000	turnkey coal-fired power plant	sub-critical	coal (bituminous)	new	1,320	1,320	508.2	33.9%	447.2	operational
not identified	Ukraine	Czech Republic	2009	hydraulic couplings and spare parts including installation	unknown	coal (type unknown)	unknown	unknown	unknown	17.2	85.0%	unknown	operational
not identified	Venezuela	Czech Republic	2005	reconstruction of a thermal powerplant	unknown	coal (type unknown)	existing, positive material change	unknown	0	15.4	85.0%	0.0	operational
Mong Duong 1 Thermal Power Plant Project	Viet Nam	Korea	2013	a coal-fired power plant EPC package	sub-critical	coal (type unknown)	new	1,000	1,000	510.0	51.0%	510.0	under construction
Thai Binh 2 Thermal Power Plant Project	Viet Nam	Korea	2013	a coal-fired power plant EPS(Engineering, Procurement, Service) package	super-critical	coal (type unknown)	new	1,200	1,200	600.0	36.2%	434.8	under construction
Vung Ang I Power Station	Viet Nam	Germany, Japan	2011	delivery of key components and complete system engineering, production and installation supervision and	sub-critical	coal (anthracite)	new	1,200	1,200	146.0	9.2%	112.8	operational
Hai Phong II Thermal Power Plant	Viet Nam	Japan	2008	steam turbine and generator	sub-critical	coal (anthracite)	new	600	600	64.7	10.0%	59.7	operational
Hai Phong I Thermal Power Plant	Viet Nam	Japan	2005	thermal power plant	sub-critical	coal (anthracite)	new	600	600	62.4	9.6%	57.6	operational

19. **Table 8** has been compiled to illustrate an issue that complicates the “ECA Story” with respect to determining the role of ECA financing (*i.e.* the term used by the world outside of the OECD Arrangement) in general, and specifically in relation to activities that are subject to a public policy debate (*e.g.* climate change). The projects listed in Table 8 (not meant to be comprehensive) were identified during the course of researching the projects supported according to the Arrangement; they comprise projects for which ECAs provided financing (including insurance and guarantees) on non-Arrangement terms, including, *inter alia*, market window export credits, untied export credits, untied export credit insurance, political risk guarantees/insurance (sometimes in relation to equity investments in the project).

20. As shown in Table 8, it is not unusual for Arrangement and non-Arrangement financing to be provided by ECAs for the same project (even sometimes by the same ECA). From an outsider’s perspective, it is understandable that all such support is characterised as “ECA financing”; in concrete terms, the non-Arrangement financing listed below amounts to USD 5.3 billion, which is almost half of the credit value reported for Arrangement export credits.

**Table 8 – Identified Coal-Related Projects with ECA Financing on Other Than Arrangement Terms
2003-2014**

Project	Country	Installed Capacity (MW)	Commitment Date	Category A/B Reports	Total Project Cost	Financing (USD Millions) From					
						Arrangement Financing		Non-Arrangement Export Credit Financing		Political Risk Insurance	
						Amount	ECAs	Amount	ECAs	Amount	ECAs
Mindanao Coal Fired Power Plant	Philippines	210	Dec-03	JBIC, NEXI	305.0	91.0	JBIC, NEXI	42.0	KFW-IPEX	--	--
Maritza East 2 Thermal Power Plant Rehabilitation (2004)	Bulgaria	1,465	Jul-04	SACE	445.6	229.7	JBIC, NEXI	--	--	207.8	SACE
Paiton I Thermal Power Plant Rehabilitation	Indonesia	1,230	Mar-06	none	--	--	--	45.0	JBIC	--	--
Barh Super Thermal Power Project (1,980MW)	India	1,980	Dec-07	none	1,133.0	87.9	EULER HERMES	--	--	380.0	JBIC
BLCF Power Project	Thailand	1,434	Oct-08	JBIC, NEXI	1,063.0	408.5	JBIC, NEXI	460.0	KFW-IPEX	--	--
Tanjung Jati B Coal-Fired Power Plant Expansion Project	Indonesia	1,320	Dec-08	none	1,753.0	--	--	1,051.8	JBIC	701.2	JBIC
NCIG Coal Export Terminal Expansion	Australia	--	Jan-10	EDC	821.5	--	--	156.2	EDC	--	--
Paiton Thermal Power Plant Expansion	Indonesia	815	Mar-10	none	1,500.0	--	--	729.0	JBIC	729.0	JBIC
Cirebon Thermal Power Plant Project (Cirebon Project)	Indonesia	660	Mar-10	none	850.0	--	--	595.0	JBIC, KEXIM	255.0	JBIC, KEXIM
Wiggins Island Coal Export Terminal (Stage I)	Australia	--	Sep-11	EDC	2,446.0	--	--	830.0	EDC, EFIC, Unidentified	--	--
Cochrane Coal-Fired Power Project	Chile	472	Mar-13	KSURE	1,350.0	250.0	NEXI	1,000.0	JBIC, NEXI	--	--
Thai Binh 2 Coal-Fired Power Plant	Thailand	1,200	Aug-13	KEXIM (2)	1,656.0	600.0	KEXIM	141.7	JBIC, NEXI	--	--
Kudgi Super-Critical Thermal Power Plant	India	2,400	Feb-14	JBIC, NEXI	350.0	91.4	JBIC, NEXI	258.0	JBIC, NEXI	--	--

Conclusions and Next Steps

21. Given the high profile of climate finance issues, it is hard to argue against having accurate, comprehensive and useful figures on the volume of export credit financing provided by ECAs and the key characteristics of the projects supported for all important sectors, not the least those that are clearly key to the climate change debate. If Members do not compile such information, the outside world will do so, and the figures that they have produced in the past have been quite inflated.

22. In this context, Members are invited to consider what steps could be taken to improve the collection and presentation of information on export credit financing, including support that is provided on

CONFIDENTIAL

Room Document No. 11

Informal Meeting on Climate Change Issues
9 October 2014

non-Arrangement terms⁴. In concrete terms, Members may wish to consider whether or not it would be appropriate to provide the information listed in paragraph 3 above on a systematic basis for all electric power generation projects.

⁴ Members will recall that it has already been agreed to provide basic information on export credits provided on market terms (“market window” transactions) *via* XCR1 submissions, however only EDC (Canada) has provided any such submissions.