

## Note on data sources and methodology

The approach to data collection and analysis for this report broadly followed the methodology used for previous reports. The main differences from before are that this report draws all data from original sources (OECD, CDC and UKEF), uses annual percentages for the UK share of support through multilateral channels and presents figures in GBP rather than USD. This appendix describes the sources and methodology used.

### Data sources

The principal source of financial data on UK government support for energy in developing countries analysed in this paper is the OECD Aid Statistics database.<sup>1</sup> Data on annual ODA and OOF disbursements by the UK government, EU institutions, multi-lateral development banks and international climate funds were downloaded for the selected CRS codes (see below).

Our previous analysis used Oil Change International's database ([www.shiftthesubsidies.org](http://www.shiftthesubsidies.org)) for data on support through MDBs and UKEF, and ODI's Climate Funds Update ([www.climatefundsupdate.org/](http://www.climatefundsupdate.org/)) for data on disbursements through international climate funds. While the use of data compiled for other purposes reduced the time required for the analysis, it introduced potential inconsistencies between data from different sources (e.g. mixing data on commitments and disbursements, assessments of support for energy access).

Figures for support provided through CDC come from CDC Annual Reports and the online CDC project database. In 2015, the government changed the way expenditure through CDC is reported to the OECD. For the years 2010 to 2014 (covered in our previous analysis), CDC disbursements were reported by project, though the descriptive information was minimal. Since 2015, DFID's reports to the OECD have included only its disbursements to CDC. How CDC deployed the funds is not reported. However, our previous analysis showed that support for energy through CDC is significant, equivalent to about one third of the UK's bilateral ODA for energy. To ensure support for energy through CDC is captured by the analysis in this report, we have used data from CDC that is in the public domain. This data is for investment commitments.

Data on UK government support for energy in developing countries through the UK's export credit agency, UKEF, is taken from UKEF Annual Reports and the UKEF website. The published figures relate to the total value of the exports supported.

### Exchange rates

Disbursements in the OECD database are in current USD. Financial figures for CDC and UKEF are in current GBP. To aggregate all figures the OECD data has been converted to GBP using an average annual exchange rate calculated by the OECD. The exchange rates used are presented in Table A1.1.

**Table A1.1: Annual average exchange rates used**

	2010	2011	2012	2013	2014	2015	2016	2017
USD	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
GBP	0.647179	0.624141	0.633047	0.639661	0.60773	0.654545	0.740634	0.777003

Source: OECD Exchange Rates <https://data.oecd.org/conversion/exchange-rates.htm>

<sup>1</sup> <https://stats.oecd.org/Index.aspx?ThemeTreeID=3&lang=en>

## CRS codes

The OECD Creditor Reporting System (CRS) categorises the purpose of financial flows, ODA and OOF, by sector. For the energy sector there are 23 categories (Table A1.2). Disbursements for all these codes are included in the analysis.

Support for exploration and production of coal, oil and gas are covered by CRS codes for ‘mineral resources and mining’ (32261 and 32262). All disbursements recorded with these codes are also included in the analysis.

The analysis also includes bilateral ODA for energy projects and programmes categorised by HMG as ‘environmental policy and administrative management’ (41010). These projects and programmes, with a total value of £ 88 million, were identified from the project titles and descriptions included in the OECD database.

**Table A1.2: OECD CRS energy sector codes**

<b>Energy Policy</b>	
<b>23110</b>	Energy policy and administrative management
<b>23181</b>	Energy education/training
<b>23182</b>	Energy research
<b>23183</b>	Energy conservation and demand-side efficiency
<b>Energy generation, renewable sources</b>	
<b>23210</b>	Energy generation, renewable sources - multiple technologies
<b>23220</b>	Hydro-electric power plants
<b>23230</b>	Solar energy
<b>23240</b>	Wind energy
<b>23250</b>	Marine energy
<b>23260</b>	Geothermal energy
<b>23270</b>	Biofuel-fired power plants
<b>Energy generation, non-renewable sources</b>	
<b>23310</b>	Energy generation, non-renewable sources, unspecified
<b>23320</b>	Coal-fired electric power plants
<b>23330</b>	Oil-fired electric power plants
<b>23340</b>	Natural gas-fired electric power plants
<b>23350</b>	Fossil fuel electric power plants with carbon capture and storage (CCS)
<b>23360</b>	Non-renewable waste-fired electric power plants
<b>Hybrid energy plants</b>	
<b>23410</b>	Hybrid energy electric power plants
<b>Nuclear energy plants</b>	
<b>23510</b>	Nuclear energy electric power plants
<b>Energy distribution</b>	
<b>23610</b>	Heat plants
<b>23620</b>	District heating and cooling
<b>23630</b>	Electric power transmission and distribution
<b>23640</b>	Gas distribution

The classification of all the data for 2010 to 2017 was checked to ensure consistency of data from across the different sources. This included checks to exclude disbursements which could not be identified as energy-related from the limited information available in the datasets. The data were disaggregated into specific categories as much as possible, but data limitations

meant that in some categorisations a significant proportion of the support provided has been included as unspecified, mixed or unclear.

The classification of recipient countries' income level and geographical region varies between the different sources. These were harmonised using the World Bank's Country and Lending Groups classification.<sup>2</sup>

### Support through multi-lateral channels

UK support for energy in developing countries through multilateral channels is estimated as a proportion of the total support for energy disbursed by EU institutions, MDBs and international climate funds. The proportion for each multilateral institution is taken to be the UK share of the budget, capital contribution or voting power in each year. The proportions, or shares, are presented in Table A1.3.

**Table A1.3: UK share of support provided through multilateral channels**

	2010	2011	2012	2013	2014	2015	2016	2017
<b>EU institutions</b>								
CEC	13.59%	14.08%	13.85%	15.01%	14.53%	15.36%	17.27%	16.44%
EDF	12.69%	12.69%	14.82%	14.82%	14.82%	14.82%	14.82%	14.82%
EIB	16.170%	16.170%	16.170%	16.111%	16.111%	16.111%	16.111%	16.111%
<b>MDBs</b>								
IDA	5.370%	5.250%	5.430%	5.520%	5.580%	5.920%	6.040%	6.200%
IBRD	4.410%	4.410%	4.330%	4.220%	4.260%	4.130%	4.140%	4.060%
EBRD	0.086%	0.086%	0.086%	0.086%	0.086%	0.086%	0.086%	0.086%
Asian DB	2.154%	1.940%	1.930%	1.939%	1.940%	1.934%	1.932%	1.932%
African DB	3.596%	1.649%	2.884%	1.688%	1.688%	1.689%	1.749%	1.770%
IADB	0.964%	0.964%	0.964%	0.964%	0.964%	0.964%	0.964%	0.964%
<b>Climate funds</b>								
GEF	10.970%	10.970%	9.300%	9.300%	9.300%	9.300%	8.720%	8.720%
CIF <sup>3</sup>	32.50%	13.30%	32.00%	33.70%	42.3%	41.40%	39.60%	39.60%

Sources: Annual Reports and Financial Statements 2010-2017 of World Bank, AfDB, AsDB, IADB, EBRD, GEF, CIF, EU and EIB.

### Energy access

There is no code or category in the OECD's Creditor Reporting System (CRS) for access to energy. It is therefore not possible to tell directly from published aid statistics how much support has been given to improving access to energy services. DFID's own reporting does not show how much of the spend on energy is for energy access, though they do provide numbers in the Annual Report on how many people have benefited through improved access to energy. Information from individual projects must therefore be used to assess how much support is provided to improve access to energy.

The number of energy projects supported by the UK through bilateral and multilateral channels over the period of the study is large. A detailed review of each bilateral and multilateral energy project was beyond the resources available to the study. The approach

<sup>2</sup> <https://datahelpdesk.worldbank.org/knowledgebase/articles/906519-world-bank-country-and-lending-groups>

<sup>3</sup> The share for the CIF is calculated as the average share of the UK contribution to the individual funds (CTF, SREP, SCF, PPCR and FIP). Because the CIF Annual Report for 2017 has not yet been published, the share in 2017 is assumed to be the same as the year before.

followed, therefore, was to review the brief descriptions of bilateral, EU, MDB and ICF projects contained in the OECD dataset to categorise them as either contributing to energy access or not.

The criteria for the categorisation of bilateral and EU projects were the same as those used by Oil Change International, adapted slightly by relaxing the requirement that a project have specific targets or indicators for energy access and by including projects which provide indirect improvement of energy access (e.g. through research or policy development). The criteria used to categorise expenditure as contributing to access were, therefore:

- The project focuses on a targeted number of new electricity connections or energy services, such as clean cook stoves, to low-income households.
- The project focuses on electricity services important to poor people, such as health clinics, schools, or telecommunications.
- The project focuses on improving the reliability of electricity services in an area that largely serves low-income households and/or electricity services important to the poor and currently has intermittent or unreliable access.
- The project focuses on provisions to make energy affordable to the poor, e.g. effective, transparent safety nets to ensure that poor people can afford energy for basic needs, such as subsidies targeted at access, not consumption (as opposed to only having measures aimed at cost recovery, such as tariff increases).
- The project is focused on productive uses in energy poor communities, such as providing energy to smallholder farmers, small and medium enterprises and labour-intensive industries.
- The project involves power grid extension to new peri-urban areas (as opposed to simply feeding into the existing grid system).
- The project involves rural, off-grid solutions for providing energy services

Although care was taken to ensure that all projects were systematically categorised, the number of transactions and the variety of data availability predated that with limited resources only cursory analysis could be performed. If a project description was lacking in detail, a further web-based search on the project code could have provided additional information, but this was beyond the resource available for the study and additional work required may not significantly alter the overall picture. Where necessary the categorisation was recorded as unspecified or unclear, and we emphasise the figures presented are estimates. Clearer reporting by lenders, especially on projects' relation to key indicators like energy access, would greatly improve transparency and accuracy in this area.