



The European Portfolio on Energy in International Development Cooperation

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List of Acronyms and Abbreviations

AEEP	Africa-EU Energy Partnership
ACP	African, Caribbean and Pacific
CRS	Creditor Reporting System
DAC	Development Assistance Committee
EBRD	European Bank for Reconstruction and Development
EC	European Commission
EIB	European Investment Bank
ESMAP	Energy Sector Management Assistance Program
EU	European Union
EUEI	European Union Energy Initiative
EUEI PDF	EU Energy Initiative Partnership Dialogue Facility
GCCA	Global Climate Change Alliance
GTF	Global Tracking Framework
IEA	International Energy Agency
IRENA	International Renewable Energy Agency
JD	Joint Declaration
LDCs	Least developed countries
MS	Member State of the EU
NDC	Nationally Determined Contribution
NGO	Non-governmental organisation
ODA	Official Development Assistance
OECD	Organisation for Economic Cooperation and Development
OOF	Other Official Flows
PPP	Public Private Partnership
RECP	Africa-EU Renewable Energy Cooperation Programme
REN21	Renewable Energy Policy Network for the 21 st Century
SDG	Sustainable Development Goal
SEforALL	Sustainable Energy for All
UN	United Nations
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNFCCC	United Nations Framework Convention on Climate Change
WB	World Bank
WHO	World Health Organisation

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1. Executive Summary

The renewed **European Consensus on Development** outlines a shared European vision and general framework for action in development cooperation of the European Union, aligning European development interventions with the United Nation's (UN) Sustainable Development Goals (SDG). The **EU Energy Initiative for Poverty Eradication and Sustainable Development (EUEI)** is the main informal forum in which EU Member States (MS) and the European Commission (EC) coordinate their work on energy and development cooperation. Amongst the main objectives of the EUEI is the encouragement of more European coherence and synergy in energy-related activities between the EC, MS and partner countries, and to stimulate raising the necessary additional resources to achieve SDG7 on energy.

The recent EU Council Conclusions on **energy and development** of November 2016¹ also stress the importance of the promotion of further coherence of the European energy development cooperation and of multi-stakeholder partnerships for delivering on SDG7. The Council Conclusions also underline the need for continued policy dialogue and joint activities within the framework of the Africa-EU Energy Partnership (AEEP), the Joint Caribbean-EU Partnership Strategy and the partnerships for renewable energy supported through the Global Climate Change Alliance (GCCA). Under the 22 Joint Declarations (JD) that the EC and EU MS have signed with several partner countries to date, the EU and MS are already pooling European efforts to achieve SDG7 and ensure better coordination at partner country level.

The EU Council Conclusions also stress the need for the EC and the EU MS to further work towards the harmonisation of definitions, indicators and methodologies for the monitoring of global progress towards the achievement of SDG7. Under the leadership of the EUEI, the EC, the EU MS and other global stakeholders are in the process of **harmonising efforts to improve donor monitoring procedures of their contributions towards the achievement of SDG7, in line with the UN Sustainable Energy for All (SEforALL) Global Tracking Framework (GTF).**

This report commissioned by the EUEI provides an overview description of the European portfolio on energy in international development cooperation. The basis for this analysis is the Organisation for Economic and Cultural Development (OECD) Development Assistance Committee

(DAC) Creditor Reporting System (CRS); the last data available covert is for the period 2010–2014. The study covers European development cooperation support from the European Institutions (EC, EIB, EBRD etc.) as well as the 28 EU Member States. This situation analysis will serve as a **baseline of European energy Official Development Assistance (ODA)** before 2015, against which to monitor future European contributions towards the achievement of SDG7 by 2030.

Since the current OECD DAC CRS data collection system does not provide all information needed for this analysis, extensive **desk research was conducted to complement the information** provided by the OECD DAC CRS on project objectives and activities, duration, financial size, as well as donors involved. **Consultations**, data exchanges and cross-checks were conducted with the EU, EU MS and other stakeholders in order to create a **unique European energy ODA database of unprecedented quality.**

In addition to this stocktaking effort, the study proposes a methodology for a web-based **inventory of EU activities on energy in development cooperation** that will be updated regularly. It will be managed within the framework of the EU Energy Initiative (EUEI). The database will showcase and highlight European energy and development activities. It will allow the EC and the EU MS to further explore synergies and to optimise the **effective use of financial resources** in view of achieving SDG7. The regularly updated data compiled in the inventory will feed into collating data on the European contribution to the achievement of SDG7 within the framework of the SEforALL GTF.

The key conclusions and **recommendations** emerging from the present study are the following:

The EUEI should consider the establishment of a road map and working groups on specific topics related to more systematic cooperation and to new partnerships, both on

- a) joint programming and
- b) improved SDG monitoring procedures.

The collective and ongoing effort to improve monitoring of SDG7, spearheaded by the EUEI, to harmonise donor monitoring systems and within the requirements of the SEforALL Global Tracking Framework, is a case-in-point and a first initiative in this direction².

1 General Secretariat of the European Council, Energy and Development – Council conclusions (28 November 2016), No. prev. doc.: 14336/16

2 See EUEI Workshop Report on SDG7 Monitoring, EC DG DEVCO C6, 17.2.2016, Brussels

2. Key Findings and Recommendations

Conclusions and Recommendations emerging from the Analysis of the European Energy ODA Portfolio

1. The EU – EU Institutions and EU Member States – is the largest donor of energy ODA globally.

- ▶ The EU and EU MS committed a total of over €22 billion to energy development cooperation ODA worldwide during the period 2010–2014. This figure can be considered the baseline for the aggregate European financial contribution to achieving SDG7. The €22 billion were channelled to more than 3,240 projects and programmes. Overall, European ODA spending over the same period was €287 billion, so that energy-related ODA made up approximately 8% of overall European ODA. During the reporting period European contributions to energy-related development cooperation increased, peaking at €5.5 billion in 2014. This trend continues in 2015 and 2016 (only aggregate data available).
- ▶ The figure of €22 billion does not include all EC and MS contributions to multilateral institutions. It only includes those earmarked for energy by European donors. **Methodological limitations impede the tracking of all European general (i.e. not earmarked) contributions to multilateral organisations which are ultimately allocated to energy. Such a calculation would, however, significantly increase the total EU contribution to SDG7.**
- ▶ With an average annual commitment³ of €4.4 billion to energy development cooperation, in the period 2010–2014 the EU and EU MS allocated around 10% annually of the estimated total of \$50 billion annual investment required to achieve universal energy access by 2030⁴ (according to IEA estimates). Considering the use of private sector instruments and the leveraging factors estimated in the energy field by the EC, the total European contribution of €22 billion has the potential to leverage up to €180 billion.

2. The largest share of European energy ODA funds allocated to energy is directed towards renewable energies.

- ▶ During the period under analysis (2010–2014), the EU and EU MS committed €9.2 billion to renewable energy projects and programmes. This is equivalent to 42% of the overall European portfolio of energy-related ODA.

3. Europe's energy-related ODA represents a substantial share in the global contribution to climate change mitigation and adaptation.

- ▶ There are significant overlaps between energy ODA and ODA directed at curbing climate change. Over 50% of European energy-related ODA directly contributes to climate change mitigation. In the period under analysis (2010–2014) the global donor community committed a total of €32 billion to energy projects with relevance for climate change. European donors contributed 42% of this sum. Aggregate funding of European energy projects with climate change mitigation as their principal or secondary objective amounted to a total of €12.5 billion. **It is important to analyse ODA streams directed at climate change and at the energy sector as complementary. In the future, it may be advisable to develop a methodology to align accounting methodologies for these two ODA streams to produce a more complete picture of energy ODA financial flows.**

4. Three-quarters of European energy-related ODA are channelled through loans to partner governments.

- ▶ With €15.9 billion channelled through public partner institutions, governments are key partners for European energy ODA.
- ▶ European energy ODA is mainly channelled through traditional loans to partner governments. In the period under consideration (2010–2014) equity and other non-traditional financing mechanisms represented only a small share of energy ODA.
- ▶ **More recent data analysis is needed to better assess the role of ODA in leveraging private sector investments in the energy sector. It is recommended to further analyse European successes with leveraging private capital to spur further action and innovation, also in light of recent data collection efforts on blended finance by the OECD DAC.**

Text marked in black represents an observation about the data
Text marked in blue represents a recommendation based on the data

³ Average for 2010–2014 (not all commitments necessarily contribute to energy access)

⁴ <http://www.worldenergyoutlook.org/publications/weo-2016>

- ▶ To-date, civil society (e.g. non-governmental organisations (NGOs)) plays a minor role as a partner entity.
Given the importance of civil society for engaging low-income communities and ensuring sustainable impact on the ground, strengthening the roles, engagement and funding of civil society may prove crucial to achieving SDG7 on energy access.

5. Africa as a continent is the largest recipient of European energy-related ODA.

- ▶ With a total commitment of €8.1 billion to projects and programmes in Africa, the continent is the largest recipient of European energy-related ODA. This is equivalent to 37% of the overall European energy ODA portfolio.
- ▶ Slightly more than half of this amount is allocated to countries in sub-Saharan Africa, while the rest is allocated to North African countries.

6. The portfolio study reveals that the EU and EU MS currently direct their support to partner countries with relatively high energy access rates.

- ▶ Of the ten partner countries that receive the largest share of European energy ODA, only two have an electrification rate lower than 90%. All of them are lower-middle-income countries; the majority of them are emerging economies.
In order to contribute to the achievement of SDG7, the European Institutions and Member States should increase their efforts in providing energy and development support in particular to least developed countries (LDCs) with significantly lower energy access rates.

Conclusions and Recommendations related to Energy and Development ODA Data Management

7. Collaborate with the OECD DAC on energy data collection aligned to SDG7 monitoring.

- ▶ Current data collection methods within the OECD DAC CRS do not allow for a clear identification of European financial contributions to the three SDG7 sub-targets of energy access, renewable energy and energy efficiency.
In view of SEforALL's monitoring of the SDG7 targets, the European Institutions and Member States should pool efforts to lobby for revision of the current OECD DAC reporting procedures by adding new categories (markers): i) renewable energy, ii) energy access and iii) energy efficiency. This would greatly facilitate the tracking of (financial) contributions to SDG7 targets within the ongoing tracking of energy-related ODA in the OECD DAC CRS, as well as the further harmonisation with SDG monitoring.

8. Additional analyses of existing data can provide important insights for better targeting and coordinating of energy-related ODA to meet SDG7.

- ▶ The information collected in this study can be analysed by a number of additional categories, including recipient country, donor, target dimension, technology, timeframe and project size, to only mention a few variables.
Existing data could be used to cater for specific topical requests for analysis coming from the EC, the MS, EUEI, SEforALL, etc. and inform EUEI discussions, strategic thinking, joint programme planning, etc., so as to expedite collective European efforts in achieving SDG7.

9. Additional data collection and analysis of innovative private sector instruments and leveraging of investment to realise SDG7 is needed to learn from experience, quantify leverage and expedite further private investment.

- ▶ Despite the increased recent focus on attracting private sector financing for energy investment, there is little empirical information available yet on the use of private sector instruments for this purpose. Given the innovation spearheaded by the EU in this regard, the EU may consider leading analytical efforts in this area.

3. Introduction

Structure of the Report

This report is divided into three chapters. **Chapter 1** provides the background to the study and situates it in the current context and other efforts and initiatives to map European (European Commission (EC), European Investment Bank (EIB) and the EU Member States (MS)) energy-related development cooperation. **Chapter 2** describes the European portfolio on energy in international development cooperation, with aggregate figures, geographical distribution and types of financial and technical assistance provided by the EU Institutions and MS towards energy-related Official Development Assistance (ODA). **Chapter 3** summarises the key findings, conclusions and recommendations for future action.

Annex I provides a technical proposal for an online database for an inventory of European development cooperation activities. The database is designed to be updated on a regular basis. Due to the specialised technical nature of the design, only an overview of the proposed database structure is provided. The full technical proposal has been submitted to the EU Energy Initiative Partnership Dialogue Facility (EUEI PDF) and serves as basis for the establishment of the online data platform. **Annex II** outlines the scope of the mapping exercise and the methodology used.

Background

It is estimated that **1.2 billion people worldwide lack access to modern energy. The United Nation's (UN) 2030 Agenda for Sustainable Development** with its global Sustainable Development Goals (SDG) is the new global framework for sustainable development. The adoption of a specific energy SDG, **Sustainable Development Goal SDG7**: "Ensure access to affordable reliable, sustainable and modern energy for all" has highlighted the role of energy access, sustainable forms of energy and energy efficiency within all sustainable development and green growth pathways. Energy is now duly recognised as a general key enabler facilitating the achievement of the other SDGs, including access to water and food, education, information and communication, health care, etc. Energy is also essential for businesses and industrial development.

Current energy production and consumption patterns generate the major share of greenhouse gas emissions worldwide. Significant increases in the use of renewable energy and energy efficiency are key elements in any strategy to reduce the risks of climate change. The **2015 Paris Agreement** reached at the 21st UNFCCC

Conference of Parties is a landmark agreement to curb global climate change. As the largest global donor and leader in combating climate change, the European Union has led efforts in shaping both the 2030 Agenda for Sustainable Development and the Paris Agreement.

The UN **Sustainable Energy for All (SEforALL) Initiative** launched in 2012 provides a global vision and framework for all stakeholders on the road to the global achievement of SDG7. SEforALL also facilitates coordination of donor activities on energy development as well as for monitoring. The SEforALL knowledge hub (World Bank (WB)/Energy Sector Management Assistance Program (ESMAP) and the International Energy Agency (IEA) has developed the **Global Tracking Framework (GTF)** that monitors progress of country-level indicators for energy access, renewable energy and energy efficiency towards the achievement of SDG7.

The global investment level to promote energy access, renewable energy, and energy efficiency has seen significant increases in recent years. The EU has substantially increased its energy portfolio; the EU and the EU MS are now also managing substantial energy and development portfolios. The European Commissioner for International Cooperation and Development, Neven Mimica, has highlighted **energy as a priority area of action for the EC**, with specific focal areas: energy access, renewable energy and private sector engagement in the energy sector. He has also restated the commitment of the EC to support developing countries in providing **access to sustainable energy services to 500 million people by 2030**.

The renewed **European Consensus on Development** outlines a shared European vision and general framework for action in development cooperation for the European Union and its Member States. It suggests the alignment of European development policy with the UN SDGs. The **EU Energy Initiative for Poverty Eradication and Sustainable Development (EUEI)** is the main informal forum in which the EU Member States and the European Commission coordinate their work on energy and development cooperation. Amongst the main objectives of the EUEI are the encouragement of more European coherence and synergy in energy-related activities between the EC, MS and partner countries, and to stimulate raising the necessary additional resources to achieve SDG7 from the private sector, financial institutions, civil society and end-users⁵.

5 The Discussion Paper: Options for Future Directions of the EUEI (2016) summarises the current scope of European cooperation on energy and development.

Sustainable Development Goal 7

SDG7: Ensure access to affordable, reliable, sustainable and modern energy for all



SDG7 Targets

- ▶ By 2030, ensure universal access to affordable, reliable and modern energy services.
- ▶ By 2030, increase substantially the share of renewable energy in the global energy mix.
- ▶ By 2030, double the global rate of improvement in energy efficiency.
- ▶ By 2030, enhance international cooperation to facilitate access to clean energy research and technology, including renewable energy, energy efficiency and advanced and cleaner fossil-fuel technology, and promote investment in energy infrastructure and clean energy technology.
- ▶ By 2030, expand infrastructure and upgrade technology for supplying modern and sustainable energy services for all in developing countries, in particular least developed countries, Small Island Developing States, and land-locked developing countries, in accordance with their respective programmes of support.

The recent **EU Council Conclusions on energy and development** of November 2016⁶ stress the importance of the EUEI as a forum for exchange amongst the EU and its Member States and the promotion of further coherence of European energy development cooperation. EU Council Conclusions underline the importance of multi-stakeholder partnerships such as the Sustainable Energy for All initiative for delivering on SDG7. The Council further highlighted the importance of raising awareness and of communicating the results of EU cooperation and development in energy – both to European and to partner countries.

Amongst the major achievements of the EUEI is the growing engagement of key partners in Africa through the **Africa-EU Energy Partnership (AEEP)** under the Joint Africa-EU Strategy (JAES) and the **Renewable Energy Cooperation Programme (RECP)** that seeks to increase private sector engagement in energy projects. The EU Council Conclusions underlined the need for continued policy dialogue and joint activities within the framework of the Africa-EU Energy Partnership, the Joint Caribbean-EU

Partnership Strategy and the partnerships for renewable energy supported through the Global Climate Change Alliance (GCCA). Under the **22 Joint Declarations (JD)** that the EC and EU MS signed with several African partner countries and Pacific states to-date, the EU and MS are pooling European efforts to achieve SDG7 and ensure better coordination at partner country level. These Joint Declarations establish national platforms for action, including energy policy development and measures to scale-up investments in the energy sector. They are designed to reap synergies, avoid unnecessary duplications and assist partner countries to achieve greater impact in achieving SDG7.

The Council also stressed the need for the EC and the MS to further work towards the harmonisation of definitions, indicators and methodologies for the monitoring of global progress towards the achievement of SDG7. Under the leadership of the EC, the EC, the EU MS and other global stakeholders are in the process of **harmonising efforts to improve monitoring procedures of donor contributions towards the achievement of SDG7**⁷

6 General Secretariat of the European Council, Energy and Development – Council conclusions (28 November 2016), No. prev. doc.: 14336/16

7 EC, 2016, Harmonising Methodologies and Principles for Measuring Access to Modern Energy, 20.9.2016, Brussels

Objectives and Scope of the Study

To further strengthen European coordination in energy development cooperation, the EUEI has commissioned the present portfolio analysis of European activities in energy and development, together with a proposal for the design of an internet-based inventory of all European energy and development interventions. The overall objectives of the study are to:

- a) Identify the **baseline contribution of the EU to SDG7 targets**, and
- b) Establish an **inventory** and updating system for coordination and joint programming.

The specific objectives of the study are to:

- ▶ Provide a reliable quantification of the **baseline financial contribution** by the EU Institutions (EC and EIB) and EU Member States towards SDG7 targets;
- ▶ Conduct analyses and derive action oriented conclusions based on the data collected;
- ▶ Develop an **information gathering system** on financial contributions, activities, initiatives and funding mechanisms of the EU as a whole on energy development cooperation;
- ▶ Propose a lean and flexible online information system which allows for regular updating of the data collected.

This report provides an overview description of the **European portfolio on energy in international development cooperation** during the currently available Organisation for Economic and Cultural Development (OECD) Development Assistance Committee Creditor Reporting System (DAC CRS) reporting period (2010–2014). This study covers all African, Caribbean and Pacific (ACP) countries that receive European development cooperation support from the different European Institutions (EC, EIB, EBRD etc.) as well as the 28 EU Member States. This situation analysis will serve as a **baseline of European energy ODA** before 2015 against which to monitor future European contributions towards the achievement of SDG7 by 2030.

In addition to this stocktaking effort, the study proposes the establishment of an **inventory of EU activities on energy in development cooperation**. This inventory will be updated regularly and will provide the basis for more active and systematic **coordination and joint programming** by the EU and EU MS within the framework of the EU Energy Initiative (EUEI). The database will showcase and highlight European energy and development activities. It will allow the EC and the EU MS to further explore synergies and optimise the **effective use of financial**

resources in view of achieving SDG7. The regularly updated data in the inventory will feed into compiling data on the European contribution to the achievement of SDG7 within the framework of the SEforALL.

The present study also identifies possible next steps to be undertaken by the EUEI, with particular emphasis on monitoring of the combined European contribution to achieving SDG7, and on working together more systematically to optimise collective European efforts.

The report is intended primarily for use by staff members of the EU, EU MS and EU Institutions and agencies working in the field of energy and development cooperation. The report is also designed to inform other energy and development practitioners as well as the general public.

The study has been carried out by the Reiner Lemoine Institute (RLI) and the Institute for Advanced Sustainability Studies (IASS) between May and November 2016. The data collected were validated through a series of stakeholder interviews with the International Energy Agency (IEA), the Sustainable Energy for All initiative, the Organisation for Economic Development (OECD), EU Member States and the relevant European institutions.

Previous Energy and Development Mapping Exercises

There are several organisations that collect global data on energy and development; they are important sources of information for future data collection, monitoring and analysis in the field of energy and development. These existing databases and compilations of data were screened and analysed in order to identify the added value of an inventory of European energy and development activities. The following studies have been identified:

Several international agencies are active in collecting general data on the global energy situation. The **International Energy Agency**⁸ produces the annual World Energy Outlook⁹ which provides an important regular reference analysis of the global energy situation. The **International Agency for Renewable Energy (IRENA)**¹⁰

8 <https://www.iea.org>

9 <https://www.iea.org/newsroom/news/2016/november/world-energy-outlook-2016.html>

10 <https://www.iea.org/newsroom/news/2016/november/world-energy-outlook-2016.html>

Source	Format	Updates	Strengths	Gaps
AEEP Africa Mapping	Report	TBD	Strategic selection of initiatives	Africa only, no financial data
RECP funding database	Database	Continuously, by RECP team + online feedback	Stakeholder involvement	Africa only, funding only
EU Results Report	Report	Annually, by EC	Strategic overview	Limited detail
AidData	Database	Continuously, various sources	Statistical data	No qualitative analysis
OECD DAC CRS	Database	Quarterly, donor input	Statistical data Activity	No qualitative analysis

Table 1: Overview of other relevant Mapping Initiatives and Data Sources

collects and analyses data on multiple aspects of renewable energy around the world, including avoided emissions, technical potentials, capacity and generation, policies, projects and finance. The United Nations conducts energy data collection and analysis, including through the specialised agencies UN Environment Programme (UNEP)¹¹ and UN Development Programme (UNDP)¹². The UN Secretary General's Sustainable Energy for All¹³ initiative has initiated unprecedented work on the monitoring of financial flows as well as tracking of progress on SDG7 in selected countries (Global Tracking Framework¹⁴). The UN Statistical Division¹⁵, the **World Bank (WB ESMAP)**¹⁶, and the **World Health Organisation (WHO)**¹⁷ also collect relevant data. The **Renewable Energy Policy Network of the 21st Century (REN21)**¹⁸ produces the Annual Renewables Global Status Report¹⁹.

Two other databases are relevant sources of information that provide specific data on energy and development Official Development Assistance in general: the **OECD DAC Creditor Reporting System** and the open source platform **AidData**. The CRS data are provided directly by the donors. AidData uses the CRS data and supplements them with information from other sources. Both databases offer the possibility to conduct statistical analyses on ODA and aid flows. However, in the current form they do not provide relevant data or interpretations of the statistics on international cooperation in the energy sector that could be used to monitor SDG7.

In July 2016 the **European Commission** presented its first **Results Report on EU International Cooperation and Development**. It summarises a selected number of outcomes of EU-funded projects and programmes that have been completed between 2013 and 2014. Although this report does not focus specifically on the energy sector, it provides a strategic overview of the EU's international development cooperation. However, due to the number of other sectors covered by the Results Report, the information on energy is not sufficiently detailed. An important resource for the present exercise was the **Mapping of Energy Initiatives and Programs in Africa** study²⁰, commissioned by the **Africa-EU Energy Partnership (AEEP)**. This inventory provides an overview of all major international donor-funded energy activities with a focus on Africa. The AEEP Mapping study presents a strategic selection of 58 initiatives and programmes on the continent, but does not include financial data on these initiatives and programmes.

A **funding database**²¹ has been compiled by the **Africa-EU Renewable Energy Cooperation Programme (RECP)** to identify equity, loan and grant opportunities for renewable energy projects in Africa. At the time of writing, over 75 individual instruments have been identified. This database has been designed to be updated on a regular basis. Stakeholders can give online feedback on the listed instruments and provide additional information on other financial instruments that have not been included in the database. Like the AEEP study, this database focuses on sub-Saharan Africa. It provides up-to-date information on potential funding opportunities for energy projects.

The present study builds on these existing data systems and research, and focuses on European energy and development activities globally. The overview of the existing mapping exercises in **Table 1** assesses their relative strengths and weaknesses in relation to the objectives and scope of the present study.

11 <http://web.unep.org>

12 <http://www.undp.org>

13 <http://www.se4all.org>

14 <http://trackingenergy4all.worldbank.org>

15 <https://unstats.un.org/home/>

16 <http://www.esmap.org>

17 <http://www.who.int/en/>

18 <http://www.ren21.net>

19 <http://www.ren21.net/status-of-renewables/global-status-report/>

20 http://www.euei-pdf.org/sites/default/files/field_publication_file/mapping_of_initiatives_final_report_may_2016.pdf

21 <http://www.africa-eu-renewables.org/services/funding-database/>

4. Trends in Energy Sector Official Development Assistance

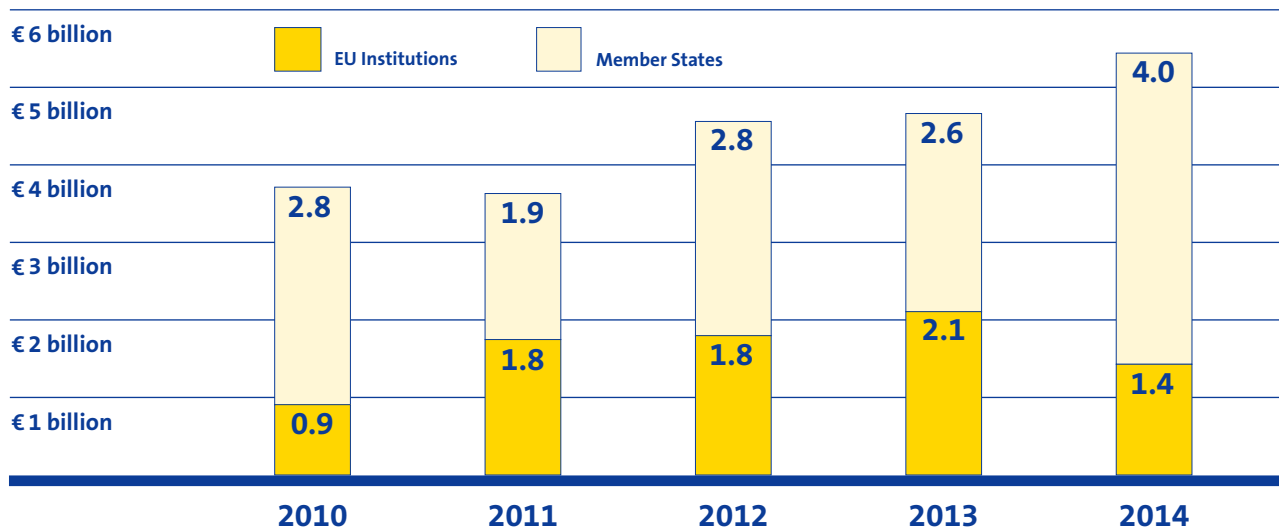


Figure 1: EU Institutions and EU Member States annual Commitments to Energy-Related ODA

The main source of data collection for the present study was the **OECD Creditor Reporting System**. In the period under consideration, 2010–2014, the latest available reporting period, the EU as a whole (EU Institutions and MS) committed a total amount of **€22 billion** to energy-related development cooperation to more than **3,240** projects and programmes. Overall European ODA spending over the same period was €287 billion, so that energy-related ODA made up approximately **8%** of overall European ODA. During the reporting period European contributions to energy-related development cooperation increased, peaking at €5.5 billion in 2014 (see [Figure 1](#)). This trend continues in 2015 and 2016.

With **€22 billion of ODA spending in 2010–2014 on energy**, the EU is the largest donor in energy development cooperation globally. The EU Institutions alone contributed **€8 billion**. EU Member States committed an aggregate amount of **€14 billion** energy-related ODA through bilateral cooperation channels (see [Figure 2: Global Energy-Related ODA and share by Donor Groups](#)).

The EU thus contributed almost a quarter of the total **€91 billion** of global spending on energy ODA over this period. EU Member States also contribute significantly to the funding of multilateral institutions, with an average 33% of their gross ODA disbursements²². Taking into account spending channelled through multilateral institutions, the EU contribution to energy development cooperation is even higher. Because energy-related ODA funding can only be traced when it is specifically earmarked for energy as a category, it is difficult to track the contributions to multilateral organisations that are allocated by these multilateral institutions to energy activities. Therefore, funds channelled by the EU and MS to multilateral organisations for energy-related interventions are not considered in this study.

²² Total use of the multilateral system can be estimated at 33% of gross ODA disbursements (2010), according to the OECD ([https://www.oecd.org/dac/aid-architecture/DCD_DAC\(2012\)33_FINAL.pdf](https://www.oecd.org/dac/aid-architecture/DCD_DAC(2012)33_FINAL.pdf)). Around 60% of this is core funding, and 40% non-core (i.e. earmarked for a specific country, project, region, sector or theme) funding.

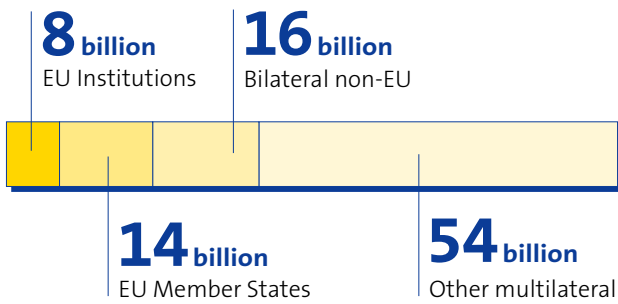


Figure 2: Global Energy-Related ODA and share by Donor Groups

With an average annual commitment of €4.4 billion ODA to energy, the EU and EU MS contributed around 10% annually to the \$50 billion annual global investment required to achieve universal energy access by 2030, as estimated by the International Energy Agency (IEA).²³

EU funding for energy has a significant leveraging effect. The energy sector is the largest sector where blending is used, making up 41% of blending funding through EC instruments, followed by transport with 21%. The EC estimates that with €3.5 billion dedicated to energy, up to €30 billion can be leveraged from other sources²⁴. This would imply that the total European contribution of €22 billion has the potential to **leverage up to €180 billion**. However, this can only be an estimation due to the mix of financial instruments used by Member States.

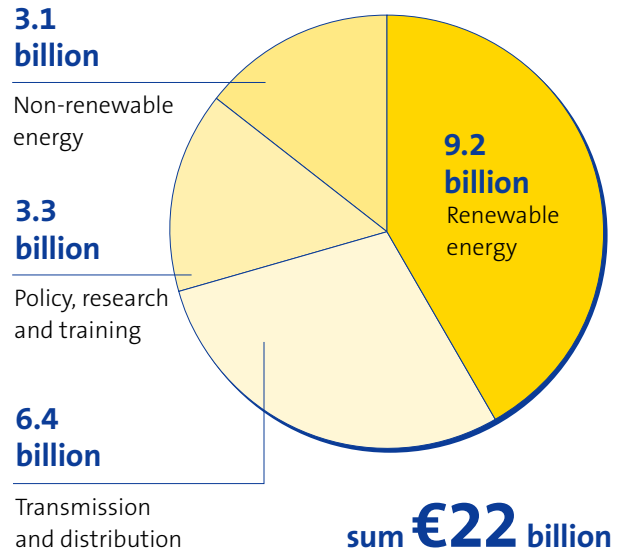


Figure 3: Fields of Intervention of European Energy ODA

²³ <http://www.worldenergyoutlook.org/publications/weo-2016/>

²⁴ https://webgate.ec.europa.eu/multisite/devco/sites/devco/files/energy-booklet-relu_en.pdf

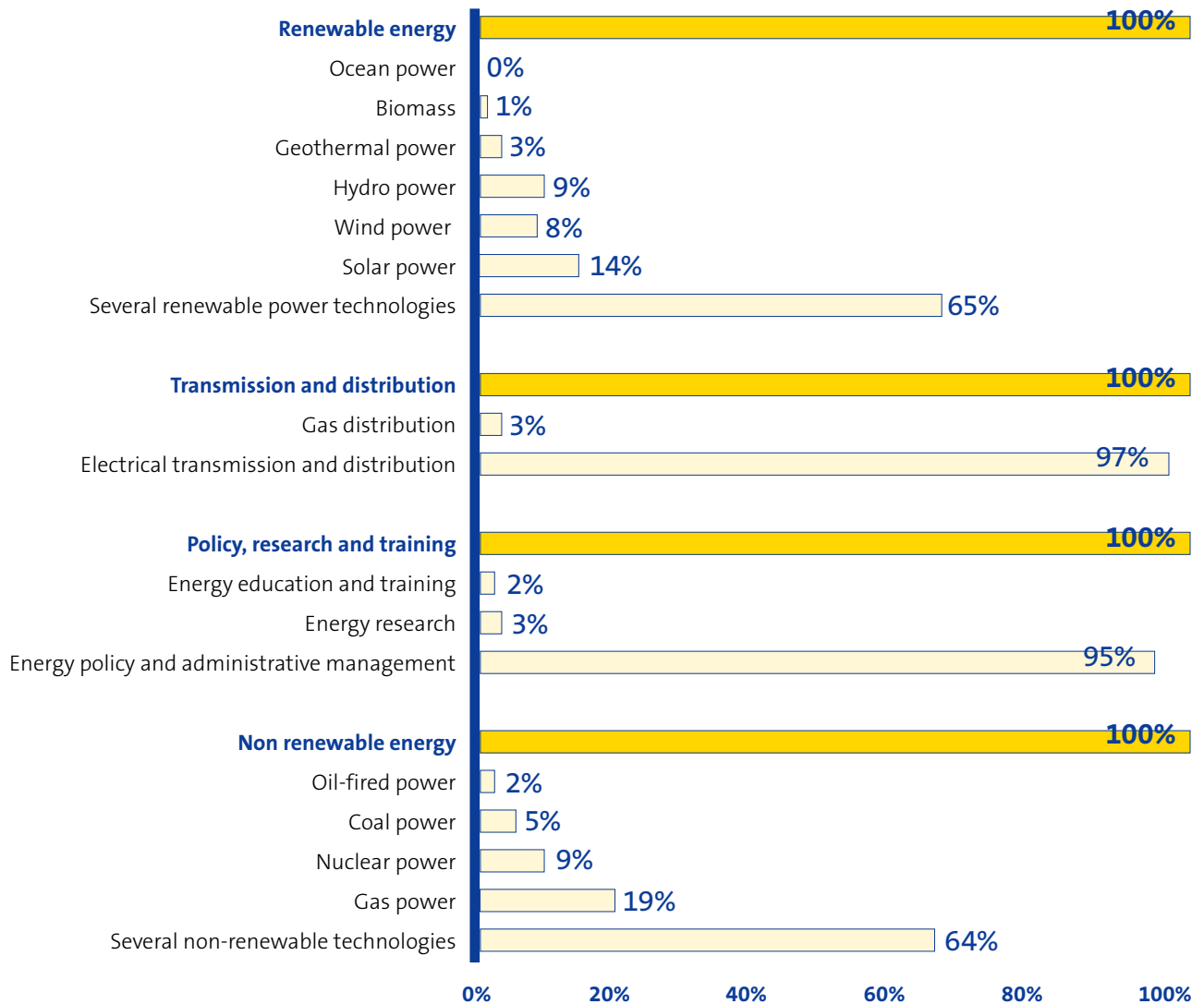


Figure 4: Breakdown by sub-Field of Intervention of European Energy ODA (see also Figure 3)²⁵

25 The sub-fields 'several renewable energy technologies' and 'several non-renewable energy technologies' include cases where the technology remains unspecified but it renewable/non-renewable. Taken directly from the OECD DAC as reported by donors.

Continent	Region	EU Energy-Related ODA (million €)	Share of Total Energy-Related ODA (%)
Asia	South & Central Asia	3,381	15.4%
	Far-East Asia	1,369	6.2%
	Middle East	388	1.8%
	Asia unspecified	110	0.5%
Africa	North of Sahara	3,452	15.7%
	South of Sahara	4,474	20.3%
	Africa unspecified	227	1.0%
America	South America	1,305	5.9%
	North & Central America	1,092	5.0%
	America unspecified	197	0.9%
Europe	Europe (non EU28)	4,224	19.2%
	Oceania	52	0.2%
Unspecified	Unspecified	1,735	7.9%

Table 2: Distribution of European Energy-Related ODA by sub-Region

Thematic Areas of European Energy ODA

Renewable energy is the **key pillar** of European energy ODA, accounting for €9.2 billion of the total contribution over the period 2010–2014. Projects focusing on energy transmission and distribution assume the second place, with a share of €6.4 billion. €3.3 billion were spent on policy development, research and capacity training. €3.1 billion were spent on non-renewable energy (see [Figure 3](#)).²⁶

As [Figure 4](#) shows, within renewable energy programmes the highest share of support was allocated to solar power projects (13.5%), followed by hydro power (8.6%), wind power (8.4%) and geothermal power projects (3.3%). A large number of projects in the OECD DAC CRS database do not specify which technology is supported, but it can safely be assumed that they are allocated to the three main renewable energy technologies (solar, wind, hydro).

For the interventions in the field of transmission and distribution, the clear focus is on electrical transmission and distribution (97%) as compared to gas distribution (3%).

A major cornerstone of European energy-related development cooperation is technical and regulatory capacity building. In this thematic area projects related to energy policy and management projects cover the largest share with 95.2%, followed by energy education, training and research. For the thematic area “non-renewable energy” the largest share of 18.6% is directed to gas power, followed by nuclear (9.5%) and coal power (5.2%) (see [Figure 4](#)). With a total budget of €3.3 billion, support to policy development and regulations for developing enabling framework conditions for renewable energies represents a key pillar of European energy-related ODA.

²⁶ Non-renewable energy spending is mostly in the context of cooperation with eastern neighbourhood countries such as Belarus and Ukraine.

Geographic Scope and Distribution of European Energy ODA

Figure 5 shows the main recipients of European ODA for energy. The African continent received the largest share with €8.1 billion, followed by Asia with €5.2 billion, Europe (non-EU countries) with €4.2 billion, Latin and Central America with €2.6 billion, and Oceania with €50 million. Because a large number of projects are implemented in countries across continents an amount of €1.7 billion cannot be assigned to a single continent.

A breakdown of continents into sub-regions, as provided in Table 2, provides a clearer picture of the geographic distribution of European energy ODA. The contributions to the African continent are split between Northern Africa and sub-Saharan Africa. Of the share for Northern Africa, €3.4 billion, the largest shares are allocated to Morocco (€1.7 billion) and Egypt (€1.1 billion).

The aggregate share for sub-Saharan Africa is slightly larger than that for Northern Africa, namely €4.4 billion. The distribution is more evenly spread among several countries, with Kenya (€980 million), South Africa (€630 million) and Mozambique (€250 million) as the three largest recipient countries.

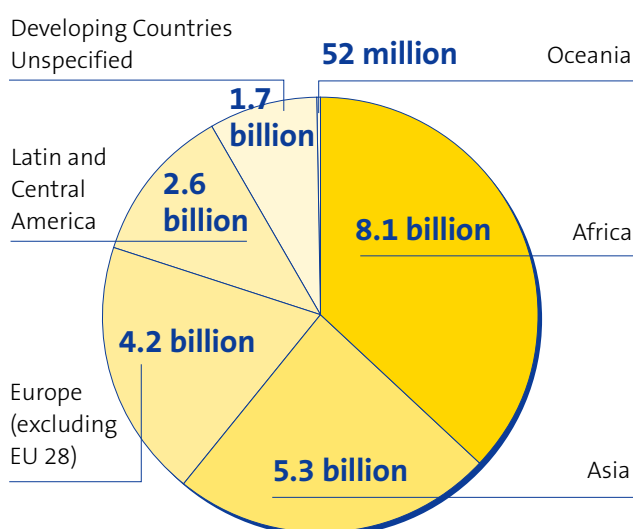


Figure 5: Distribution of Energy-Related ODA by Recipient Region

For the Asian continent the breakdown reveals that the main share of ODA flows go to South Asia, with the largest contribution going to India (€2.1 billion). Eastern and South-Eastern Asia rank second: Vietnam (€810 million) is the main recipient in the region.

In Latin America, Brazil is the main recipient (€730 million), followed by Chile (€390 million). Central America received €1 billion.

Figure 6 shows the geographical allocation of European energy-related ODA. The map highlights the key geographical areas of intervention. It shows that the largest share of European energy-related ODA is allocated to the emerging countries India, Egypt, Morocco and Turkey.

A slightly different picture emerges when analysing the European energy and development cooperation portfolio in terms of energy ODA per capita in the different partner countries (compare Figure 6 and Figure 7). European (non-EU, mainly EU Neighbourhood countries) partner countries receive a relatively higher share of ODA per capita as compared to other partner countries.

Figure 8 shows the level of electricity access in the population by country^{27,28}. The lowest access rates are strongly concentrated in sub-Saharan Africa. Comparing data in Figure 8 and Figure 6 indicates that there is a mismatch between the countries that receive the most European energy ODA and those that are most in need of support for achieving higher energy access rates. This is particularly striking in view of the objective formulated in SDG7: “supplying modern and sustainable energy services for all [...], in particular least developed countries”.

Figure 9 shows the total population without electricity access by country: the largest rates of the population without access are in India, Nigeria, DR Congo and Ethiopia. Given that these countries also have high population growth rates, the problems associated with lack of electricity access will be compounded by population growth. Significant increase in energy access rates in these countries is therefore crucial for the achievement of SDG7.

27 <http://www.worldenergyoutlook.org/resources/energydevelopment/energyaccessdatabase/>

28 Electricity is taken as a proxy for access to modern energy, in line with standard practice (World Energy Outlook, IEA).

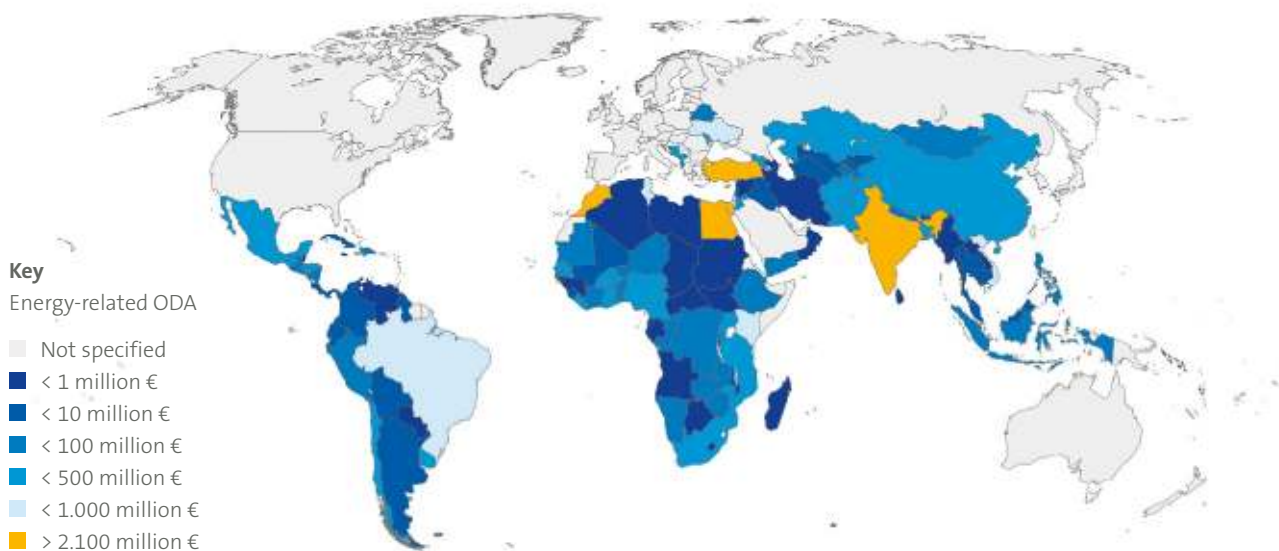


Figure 6: Total European Energy-Related ODA per Country

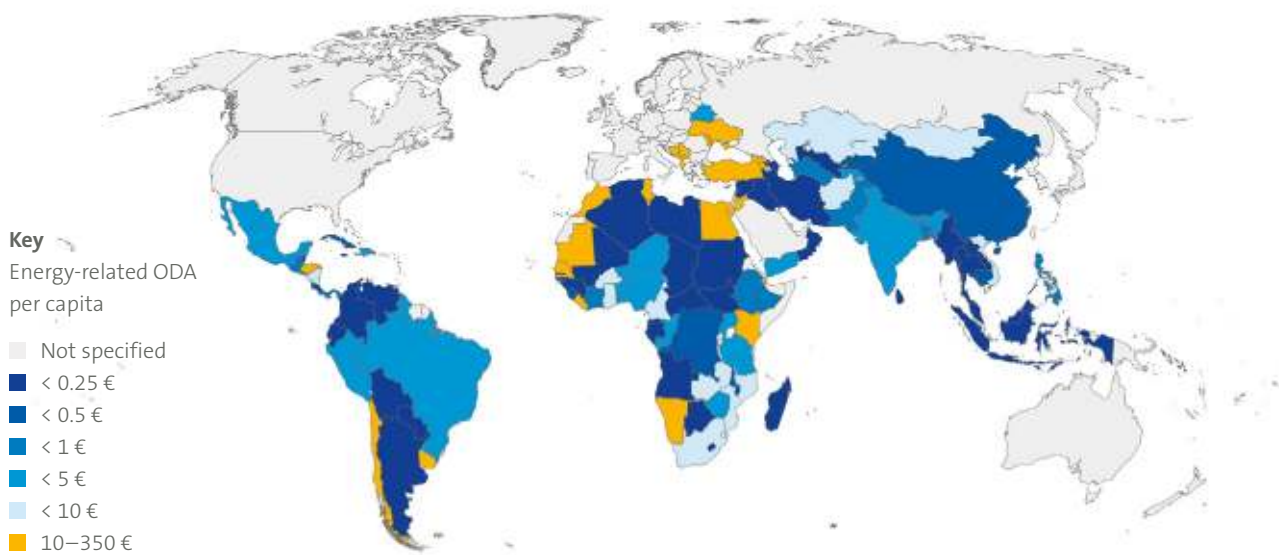


Figure 7: European Energy-Related ODA by Capita allocation

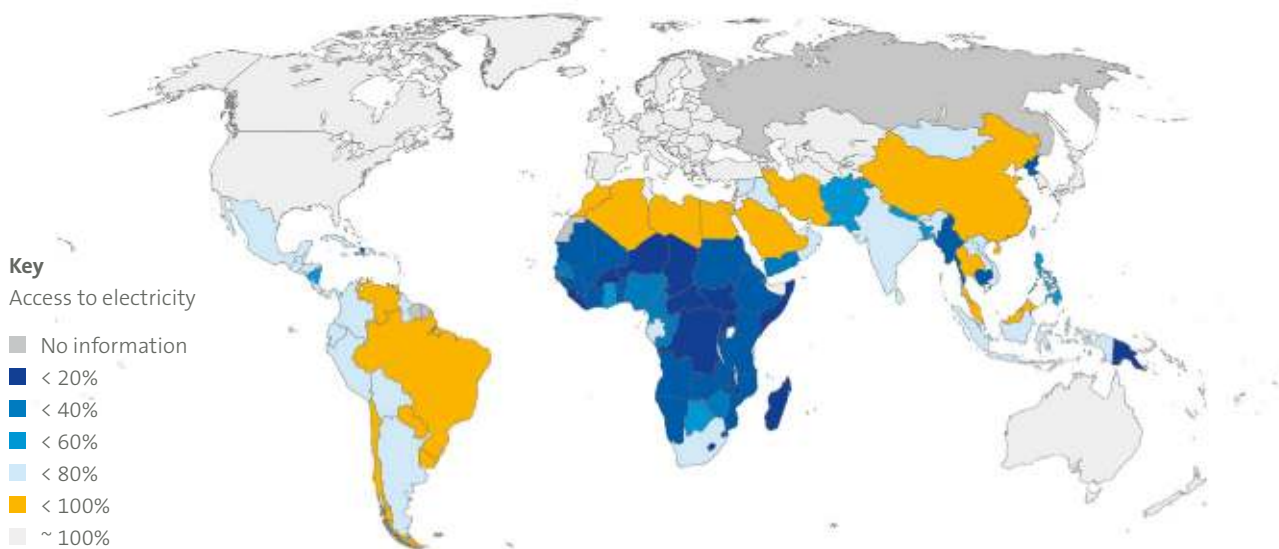


Figure 8: Percentage of Total Population with Access to Electricity

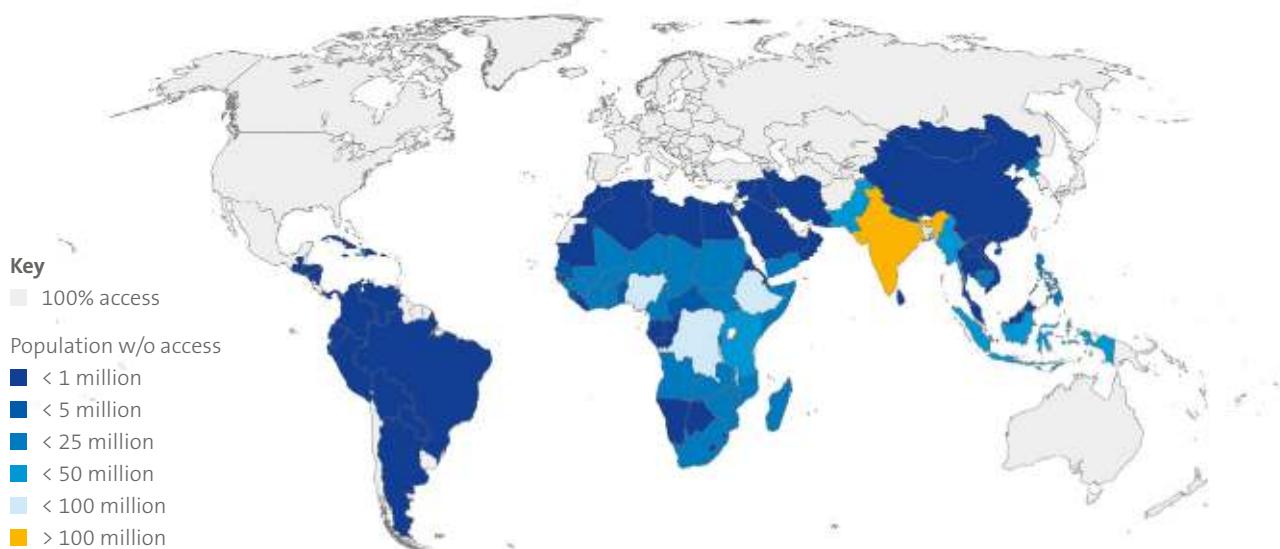


Figure 9: Population without Access to Electricity (millions)

Partner Country	Energy-Related ODA (€)	Access to Electricity (%)	Population without Access to Electricity (million)
India	2,105,273,000 €	81	237.4
Morocco	1,738,928,000 €	98	0.4
Turkey	1,647,202,000 €	100	0
Egypt	1,101,923,000 €	99	0.3
Kenya	978,283,000 €	20	35.4
Ukraine	931,427,000 €	100	0
Vietnam	814,527,000 €	97	2.6
Brazil	730,909,000 €	99	0.8

Table 3: The Ten largest Recipient Countries of European Energy-Related ODA

The ten largest recipient countries of European energy-related ODA are listed in Table 3. Most of these ten countries are emerging economies; all are categorised as lower-middle-income economies or higher by the World Bank. These ten countries receive more than 50% of the overall European energy-related ODA. Kenya and India are the only two countries of the ten with an electricity access rate lower than 90%. The ten largest recipients of energy-related ODA have a total population of over 276 million people who live without access to electricity. Considering that an estimated 1.2 billion people lack access to electricity, the question arises whether SDG7 can be achieved without redirecting ODA resources.

Types of European Financial Assistance and Partners involved

The lion's share (74%) of all European energy ODA is allocated in the form of loans. Grant-based ODA ranks second with 22%; equity and interest subsidies are only 3% and 0.3% respectively (see Figure 10). The main direct recipients of European energy-related ODA are partner country governments, followed by development banks, multilateral organisations and the private sector. A very small share is allocated to NGOs, public private partnerships (PPPs) and academia.

Figure 10 and Figure 11 suggest that during the period under consideration (2010–2014), ODA was primarily channelled via traditional, public sector vehicles in the form of loans and grants. Equity only made up a very small share of ODA. By now, it is well accepted that traditional ODA should be complemented by so-called private sector instruments designed to catalyse the large-scale investment needed from the private sector, especially for investments in infrastructure. The EU is a frontrunner in the field of developing new financial instruments such as the Global Energy Efficiency and Renewable Energy Fund (GEEREF) and the new Electrification Financing Initiative (ElectriFI).

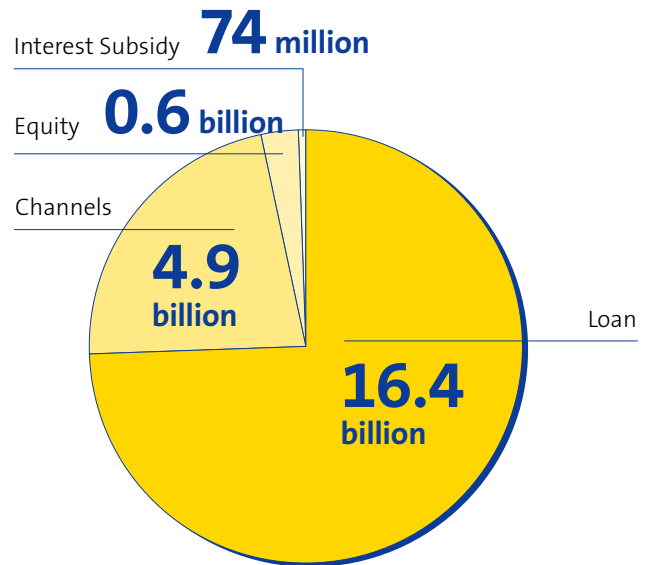


Figure 10: Modalities for channelling European Energy ODA

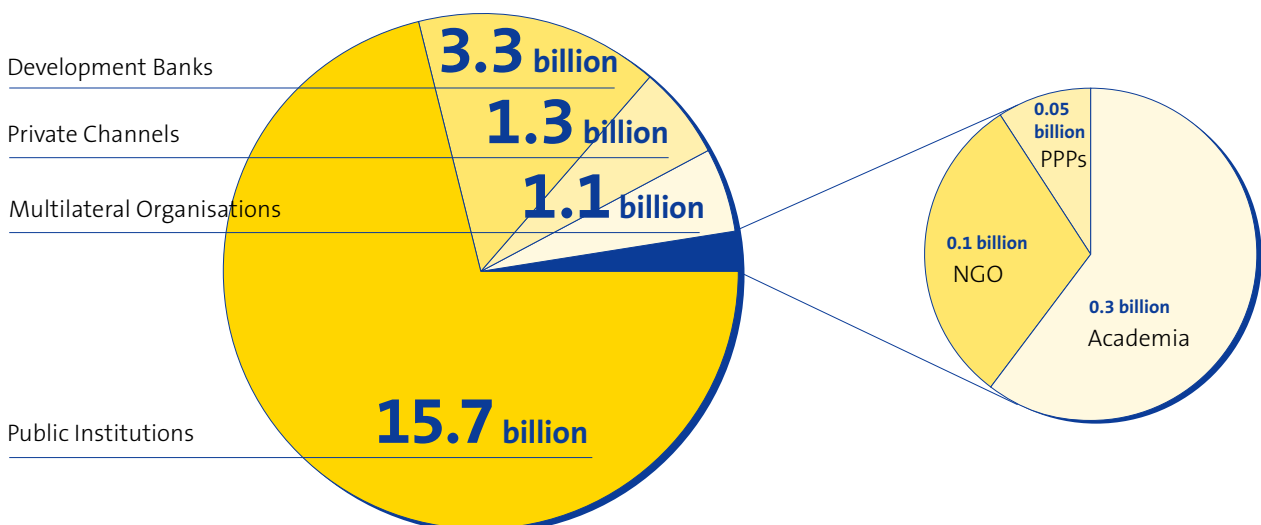


Figure 11: Types of Partner Organisations through which European Energy-Related ODA is channelled

In order to collect data on private capital leveraging, the OECD DAC has recently revised its statistical system.²⁹ The first results from a methodological test with the data collected to date are available.³⁰ This data will provide the basis for compiling a first overview of the use of securing risk capital as an instrument to stimulate private sector investment in the energy sector by the EU and the MS.

The Climate Contribution of European Energy ODA

Investments in sustainable energy and energy efficiency activities are integral parts of any strategy to tackle climate change, for climate change mitigation as well as adaptation. The OECD DAC CRS yields data on the contribution of energy ODA to tackling climate change for a specified energy cooperation activity, distinguishing between mitigation and adaptation as either principal or significant objectives. Given the nature of energy activities, mitigation through reductions in greenhouse

gas emissions constitutes a much higher total contribution to climate change than adaptation. According to the data collected by the OECD DAC the global donor community committed a total of **€32 billion** to energy projects with relevance for climate change during the period under consideration (2010–2014). European donors contributed **42%** of this sum. As [Figure 13](#) illustrates, aggregate funding of European energy projects with climate change mitigation as their principal objective amounted to a total of **€9.4 billion**, followed by projects which significantly contribute to mitigation with a total budget of **€3.1 billion**. A total budget of **€900 million** has been allocated to energy activities with the objective of contributing to climate change adaptation.

The EU and its Member States together are the biggest donor group in climate finance allocated to developing countries. In 2015, the EU, EIB and Member States provided **€17.6 billion** to assist developing countries in tackling climate change, which is equivalent to around a third of all public funding globally for action to tackle climate change.³¹

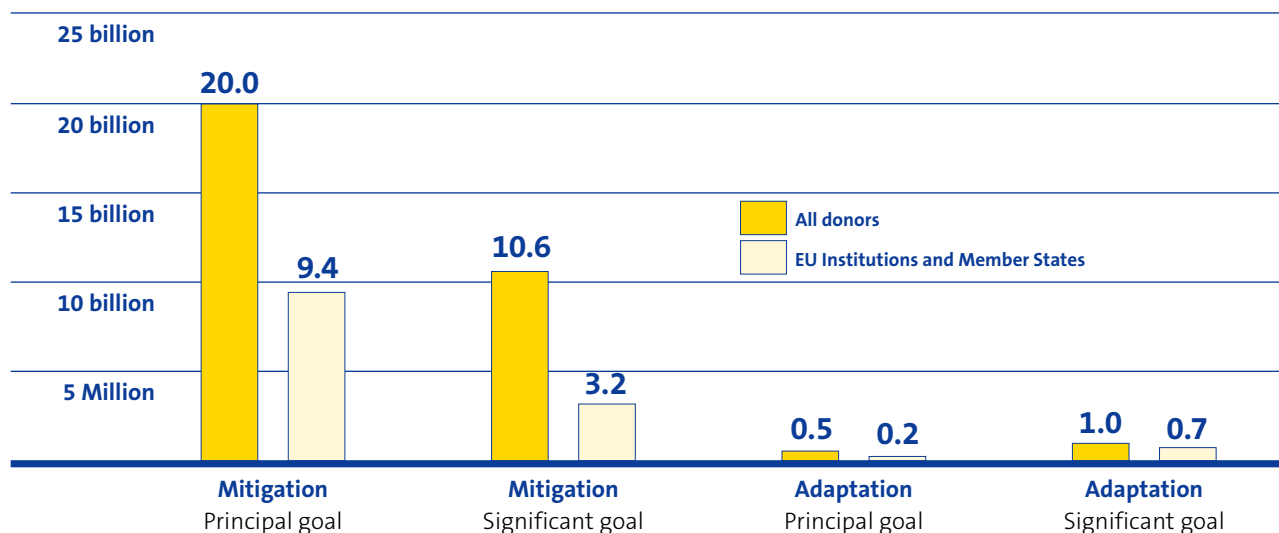


Figure 12: ODA allocated to Energy Activities that contribute to Climate Change Mitigation and Adaptation (2010–2014)

29 <https://www.oecd.org/dac/DAC-HLM-Communique-2016.pdf>;
<https://www.oecd.org/dac/financing-sustainable-development/GUARANTEES%20report%20FOUR%20PAGER%20Final%2010%20Mar%2014.pdf>

30 <http://www.oecd-ilibrary.org/docserver/download/5jm3xh459n37-en.pdf?expires=1483909454&id=id&accname=guest&checksum=74149CFC91CA33FD87A85164B7B6BD10>

31 http://europa.eu/rapid/press-release_IP-16-3533_en.htm

Annex I: Proposal for a European Energy and Development Online Database

The EUEI requested the establishment of an online database that collects up-to-date information on European energy-related development cooperation. This database should add key information not covered by other databases and provide a comprehensive overview of all European energy and development ODA. This study proposes a database design for a European inventory of energy development cooperation projects and programmes. The following text provides a summary overview of the proposal for this European energy and development online database³².

Outline for an Online Database

Various institutions monitor energy targets globally, like the IEA, IRENA, and SEforALL. At present there is no common reporting system or database that compiles ODA statistics specifically focused on the EU and EU Member States. The OECD DAC CRS compiles data on the main ODA flows of all international donors. Even though the OECD DAC statistics provide a comprehensive overview of financial flows, the information on specific project activities and technologies supported is not suited to be used for SDG7 monitoring purposes. The OECD DAC CRS does not collect information on ODA flows distinguished by the three SDG7 target dimensions of Renewable Energy, Energy Access and Energy Efficiency.

In order to ensure the applicability and sustainability of the proposed database it must have the following features: the database must be simple, comprehensive, practical, user-friendly, and easily accessible. It needs to be web based so that remote access is possible to access information, for updating and editing.

The database should store initiatives and related information about:

- ▶ involved partners, donors and agencies;
- ▶ targeted energy sub-sectors and energy categories according to SDG7 (renewable, energy access, energy efficiency);
- ▶ target regions and countries;
- ▶ types of support (financial: loans, grants, equity; and technical: technical assistance to framework conditions, etc.).

Users

The data base users shall be differentiated. Access to the application should have three levels with different levels of access rights:

Level 1 – Standard users have the rights to:

- ▶ read information on initiatives;
- ▶ filter initiatives via different user-defined filter criteria;
- ▶ see aggregated information and statistics on multiple (filtered) initiatives.

Level 2 – Authorised users (inherit rights of level 1) have the rights to:

- ▶ add/edit initiatives and related tables (changes will take place after acceptance by the database administrator).

Level 3 – Administrators (inherit rights of level 1&2) have the rights to:

- ▶ access complete database and see/edit/add/delete entries;
- ▶ change input values (such as regional scopes, etc.);
- ▶ add/delete authorised users;
- ▶ accept/decline entries and changes from authorised users.

32 The EUEI PDF has the full technical report for the design of this database.

Visualisation

The following are examples of how to visualise the database and to provide interfaces to interact with the database on a web page.

The screenshot shows the 'EUEI PDF' website interface. At the top, there are tabs for 'Initiatives' and 'Statistics', and a user status 'logged in as: User #1' with a 'Logout' button. Below this is a 'Filter' table with the following data:

Filter	Value
Reference Period	2012-2014
Budget	>1 Mio €
Region	Tanzania

Below the filter table is a table of initiatives:

Name	Agency	Donor	Year	Budget	Region
Ini #3	A23, A4	Germany	2013	2 Mio €	Tanzania
Ini #77	A1	Denmark	2012	0.4 Mio €	Tanzania
Ini #101	A10, A2, A33	USA	2012	5.5 Mio €	Tanzania

Callouts in the image indicate: 'Filters can be set by clicking on them' (pointing to the filter table), 'Columns can be ordered' (pointing to the initiative table headers), and 'Items can be clicked to see further information' (pointing to the initiative rows). A callout on the right says 'Information on selected item'. At the bottom, there is a button: '>>> See statistics on filtered initiatives'.

Annex I – Figure 13: Overview Page of the Website

The screenshot shows the 'EUEI PDF' website interface for creating and editing partner information. At the top, there are tabs for 'Initiatives', 'Statistics', and 'Add/edit initiatives', and a user status 'logged in as: User #2' with a 'Logout' button. Below this is a navigation bar with tabs: 'Initiatives', 'Agencies', 'Donors', 'Partners', 'Region', 'Target Dimension', 'Energy Generation & Access', 'Financing', and 'Technical Assistance'. The 'Partners' tab is selected. Below the navigation bar is a list of partners: 'Partner #1', 'Partner #2', and 'Partner #3'. Below the list is a button: 'Create new partner'. Below this is a form for creating a new partner with the following fields:

Column	Value
Name	Partner #2
Contact	Address of partner #2
Weblink	www.partner#2.org
Type	Government
Acronym	P2
Comment	Comment on partner #2

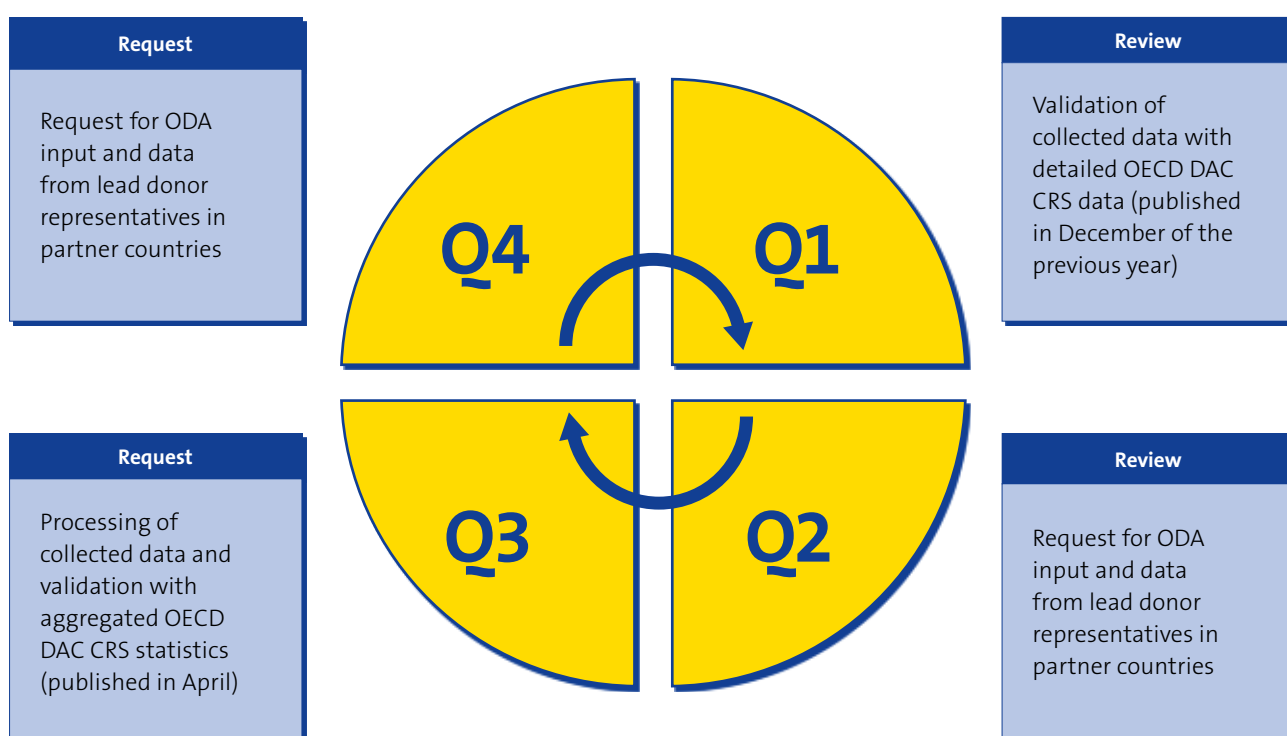
A callout points to the 'Type' dropdown menu, saying 'List of possible partner types'. At the bottom, there is a button: 'Save changes to partner'.

Annex I – Figure 14: Page for Creating and Editing Information on Partners

Updating Cycle and Sustainability

The OECD DAC CRS statistics is recommended as the main data source for the proposed database. It is suggested to closely link the updating cycle of the proposed online database to the latter. In order to keep the workload for editors as low as possible the online database reporting scheme can be harmonised with that of the OECD DAC CRS. The annual updating cycle for the online database starts in the first quarter of the year, with requesting ODA data from EC and MS. Additional fields (e.g. target dimensions) can simply be added to the OECD reporting scheme. In practice, this would require drafting the database

structure in a way that key information from the OECD DAC CRS is inherited. In Q2 the collected data are then validated with aggregated data published for OECD DAC CRS (publication in April). By the end of the third quarter (Q3) the data entry period is closed. Preliminary results are published and key statistics derived. The final quarter of the year is used for validating the collected information with the detailed information of the OECD DAC CRS for the previous year (published in December). The sustainability of the database is assured by defining a mandate and responsibility for keeping the database updated. Suitable



bodies for such a mandate could be, for example, the EUEI PDF or the EC's Joint Research Centre (JRC) or others

Annex I – Figure 15: Suggested updating Cycle and biannual Review³³

³³ The OECD DAC CRS updating cycle can be found at <http://www.oecd.org/dac/stats/databaseupdatesfordacandcrsonline.htm>

Annex II: Methodology used for the EU Energy and Development Portfolio Analysis (2010–2014)

The main source of data collection for the present study was the **OECD DAC CRS**. The EC, EIB and the majority of the EU Member States³⁴ are members of the Development Assistance Committee (DAC) and thus report their financial contributions to the OECD DAC CRS based on **traceable criteria** and purpose codes. The CRS is therefore a valuable starting point for data collection.

As a first step, all CRS raw data for the period of 2010 to 2014 – the most recent years available – was **retrieved** through an authorised request to the OECD. ODA commitments by European Institutions, EU Member States and the European Investment Bank (EIB) to sector 230–236 (Energy) were **filtered and imported** into a database. The next step consisted of data verification and completion. Due to the varying depth and quality of the data available in the CRS, a desk study was conducted for the most recent entries and the data was **complemented and verified** with sources available online and through stakeholder **interviews**. With this approach, fragmentary data was completed and irrelevant entries removed from the list. As far as possible, the CRS categories and the SDG7 targets were used to **systematise** the activities. This improved the **uniformity and reliability** of the data.

In addition to the desk research, interviews were conducted. Relevant institutional representatives received a list of the verified CRS entries and were asked to **validate** the listed activities for completeness and representation of their respective portfolio. The entries in the database were then adapted accordingly.

Efforts were made to provide the **most reliable and accurate quantification** of the financial contributions. There may still be entries left out of the database due to non-reporting, miscoding, or incomplete/missing information such as project timeframe, currency or financial contribution. Smaller contributions in particular may be missing. The quantification of financial contributions presented in this report is therefore tentative to a certain degree and may benefit from further refinement as the inventory is systematically updated and complemented. Nevertheless, due to the **due diligence process** presented above, the quantification presented is reliable to the best of the authors' knowledge.

Data Collection Process

In the initial phase of the project, an assessment of the data availability and information on energy-related development cooperation of European donors was conducted. This included the review of various information sources such as documents, reports and web pages.

The OECD DAC CRS was identified as the best data source for comparable and reliable results and conclusions. EU Member States use different reporting schemes, report their activities with varying degrees of detail and have different approaches to open data. However, their reporting to the OECD DAC follows uniform procedures that undergo significant cross-checks. It is therefore deemed sufficiently reliable and fit for use as the basis for the quantifications documented in this report.

However, the CRS data source does not provide information regarding all the objectives of this study. Therefore, **extensive desk research was conducted to complement the information** provided by the OECD DAC system regarding project objectives and activities, duration, financial size, as well as donors involved. **Consultations**, data exchanges and cross-checks were conducted with Member State agency representatives. This procedure has led to the creation of a **unique database of unprecedented quality**.

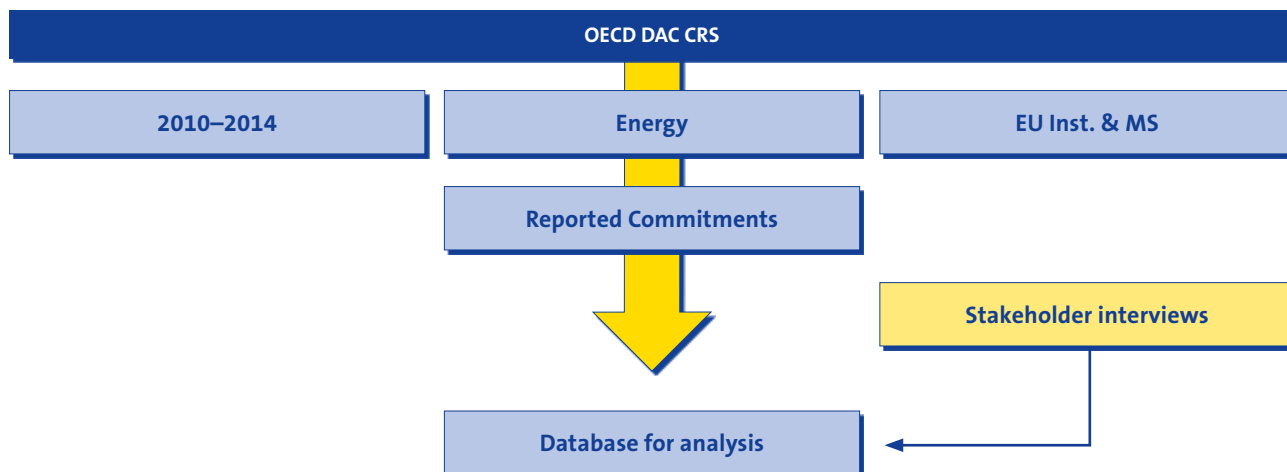
The OECD DAC CRS is part of OECD's International Development Statistics (IDS). "The objective of the CRS Aid Activity database is to provide a set of readily available basic data that enables analysis on where aid goes, what purposes it serves and what policies it aims to implement, on a comparable basis for all DAC members. Data are collected on individual projects and programmes. Focus is on financial data but some descriptive information is also made available."³⁵

The OECD DAC CRS provides information on different types of energy-related development cooperation projects and includes the following categories:

- ▶ recipient countries (OECD DAC recipient countries include developing countries, neighbourhood and transition economies; the full list is available at <http://www.oecd.org/dac/stats/documentupload/DAC%20List%20of%20ODA%20Recipients%202014%20final.pdf>);

34 Austria, Belgium, Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Poland, Portugal, Slovak Republic, Slovenia, Spain, Sweden and United Kingdom. Contributions by the remaining Member States are calculated from the other mentioned databases and ad hoc research.

35 <https://stats.oecd.org/Index.aspx?DataSetCode=CRS1>



Annex II – Figure 16: Schematic Visualisation of the Study's Methodology

- ▶ providers (grouped into bilateral and multilateral);
- ▶ sectors and sub-sectors;
- ▶ annual commitments/disbursements;
- ▶ flows: grants, loans, ODA, Other Official Flows (OOF);
- ▶ channels of delivery;
- ▶ types of aid.

The following approach (see Figure 16) was applied for analysing the OECD DAC CRS statistics on energy-related development cooperation:

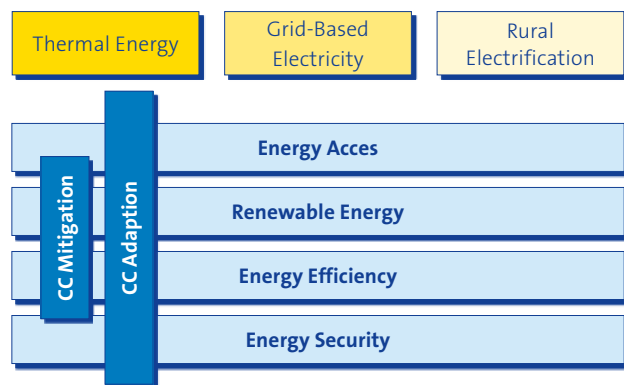
- ▶ The respective raw datasets for the period 2010–2014 were retrieved from the OECD DAC CRS.
- ▶ The four individual datasets for 2010–2014 were merged into one dataset for further analysis.
- ▶ The dataset is limited to entries of European donors only.

- ▶ For further analysis, only commitments were considered, to avoid double counting of contributions³⁶.
- ▶ The overall number of energy projects and programmes was calculated by summing up the number of entries for each donor after having checked for double entries. The total budget was calculated by summing up the commitments stated by each donor country. As the OECD DAC CRS cites the budgets in US dollars the amounts are converted to Euros.³⁷
- ▶ The budget for fields of intervention was calculated by summing up the commitments stated for each predefined field. For the sake of consistency the four main fields of intervention used are:
 1. Renewable energy,
 2. Transmission & Distribution,
 3. Policy, research, and training and
 4. Non-renewable energy.

³⁶ Commitments measure donors' intentions and permit monitoring of the targeting of resources to specific purposes and recipient countries. Disbursements show actual payments in each year. An increase in aid allocations over time is thus visible in disbursements data only with a few years' time lag. Consequently, disbursements in one year cannot be directly compared to commitments in the same year, as disbursements may relate to commitments originally recorded in different years (taken from OECD FAQ <http://www.oecd.org/dac/stats/faq.htm>).

³⁷ An average currency exchange rate of €1 = \$1.27 is applied reflecting the average exchange rate for 2010 to 2014.

The Challenge of Monitoring Energy Goals: Target Dimensions vs Energy sub-Sectors



The international community is committed to achieve universal goals on energy access, renewable energy and energy efficiency. All donors and partners are required to monitor their contributions and the impact of their activities contributing to SDG7. However, there are some methodological problems with counting specific contributions.

It is not always acknowledged that there is a gap between energy activities on the ground and political targets. The SDG7 targets refer to target dimensions that are not differentiated into achievements within the different energy sub-sectors. This raises methodological questions like for example: Should a hybrid mini-grid be counted as contributing to energy access or renewable energy? Is the improvement of an existing grid strictly an energy efficiency project or also contributing to improved, more reliable energy access? The targets are achieved through a variety of concrete activities in various energy sub-sectors. Energy projects often contribute to different target dimensions. Hence, there may be overlaps or aggregations in accounting for individual target achievements.

When allocating specific fund flows to each of the three dimensions of SDG7, it is crucial to keep in mind such methodological issues. The present analysis has devised methods to estimate the contribution to the different targets. With the above-mentioned methodological problems the information compiled ultimately relies on the donors' own identification of the targets that their respective activities contribute to.

Additional methodological challenges are the allocation of funding flows towards improvements of general framework conditions, like improved policy frameworks, capacity building, energy strategies, stakeholder dialogue and engagement. These actions are crucial for the achievement of SDG7 targets, but cannot be directly linked to specific targets.

It is also relevant to note the inter-relations between achieving the energy targets of SDG7 and the climate change targets, namely climate change mitigation and adaptation (Sustainable Development Goal SDG13). Projects that contribute to energy access, energy efficiency and renewable energy also contribute to climate change adaptation. But only projects contributing to energy efficiency and renewable energy contribute to climate change mitigation.

Current data collection processes within the OECD DAC CRS do not allow for a clear identification of financial contributions to the three SDG7 objectives (energy access, renewable energy and energy efficiency). Efforts should be made to lobby for an adaptation of current revise OECD DAC reporting procedures to SDG monitoring needs.

Annex III: Data Sources – OECD DAC Reporting Codes 230–236 and Descriptions³⁸

Codes 230–236: Aid to the Energy Generation and Supply Sector

DAC 5 CODE	CRS CODE	Voluntary Code	Description	Clarifications / Additional notes on coverage
230			Energy generation, distribution and efficiency	Categories 231 through 235 include both electric power plants and combined heat and power (CHP) plants. Heat-only plants, whatever the type of fuel, are reportable under category 236. Activities relating to fuelwood/charcoal production, energy manufacturing and natural resources extraction (including oil and gas pipelines) are reportable under categories 312, 321 and 322 respectively.
231			Energy generation, distribution and efficiency – general	
	23110		Energy policy and administrative management	Energy sector policy, planning; aid to energy ministries; institution capacity building and advice; unspecified energy activities.
		23111	Energy sector policy, planning and administration	
		23112	Energy regulation	Regulation of the energy sector, including wholesale and retail electricity provision.
	23181		Energy education/ training	All levels of training not included elsewhere.
	23182		Energy research	Including general inventories, surveys.
	23183		Energy conservation and demand-side efficiency	All projects in support of energy demand reduction, e.g. building and industry upgrades, smart grids, metering and tariffs. Also includes efficient cook-stoves and biogas projects.
232			Energy generation, renewable sources	
	23210		Energy generation, renewable sources – multiple technologies	Renewable energy generation programmes that cannot be attributed to one single technology (codes 23220 through 23280 below). Fuelwood/charcoal production should be included under forestry 31261.
	23220		Hydro-electric power plants	Including energy generating river barges.
	23230		Solar energy	Including photo-voltaic cells, solar thermal applications and solar heating.
	23240		Wind energy	Wind energy for water lifting and electric power generation.

	23250		Marine energy	Including ocean thermal energy conversion, tidal and wave power.
	23260		Geothermal energy	Use of geothermal energy for generating electric power or directly as heat for agriculture, etc.
	23270		Biofuel-fired power plants	Use of solids and liquids produced from biomass for direct power generation. Also includes biogases from anaerobic fermentation (e.g. landfill gas, sewage sludge gas, fermentation of energy crops and manure) and thermal processes (also known as syngas); waste-fired power plants making use of biodegradable municipal waste (household waste and waste from companies and public services that resembles household waste, collected at installations specifically designed for their disposal with recovery of combustible liquids, gases or heat). See code 23360 for non-renewable waste-fired power plants.
233			Energy generation, non-renewable sources	
	23310		Energy generation, non-renewable sources – unspecified	Thermal power plants including when energy source cannot be determined; combined gas-coal power plants.
	23320		Coal-fired electric power plants	Thermal electric power plants that use coal as the energy source.
	23330		Oil-fired electric power plants	Thermal electric power plants that use fuel oil or diesel fuel as the energy source.
	23340		Natural gas-fired electric power plants	Electric power plants that are fuelled by natural gas.
	23350		Fossil fuel electric power plants with carbon capture and storage (CCS)	Fossil fuel electric power plants employing technologies to capture carbon dioxide emissions. CCS not related to power plants should be included under 41020. CCS activities are not reportable as ODA.
	23360		Non-renewable waste-fired electric power plants	Electric power plants that use non-biodegradable industrial and municipal waste as the energy source.
234			Hybrid energy electric power plants	
	23410		Hybrid energy electric power plants	Electric power plants that make use of both non-renewable and renewable energy sources.
235			Nuclear energy electric power plants	
	23510		Nuclear energy electric power plants	Including nuclear safety.

236			Heating, cooling and energy distribution	
	23610		Heat plants	Power plants which are designed to produce heat only.
	23620		District heating and cooling	Distribution of heat generated in a centralised location, or delivery of chilled water, for residential and commercial heating or cooling purposes.
	23630		Electric power transmission and distribution	Grid distribution from power source to end user; transmission lines. Also includes storage of energy to generate power (e.g. pumped hydro, batteries) and the extension of grid access, often to rural areas.
	23640		Gas distribution	Delivery for use by ultimate consumer.

Table 4: Codes 230–260

For more information,
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