Policy Brief

2030 Agenda: Review Process of SDG7 on Energy

The 2030 United Nations Agenda for Sustainable Development recognises that access to affordable, reliable, sustainable and modern energy is a crucial foundation for human development.[i] Sustainable Development Goal 7 (SDG7) is considered an "enabler", necessary to provide fundamental services for almost all aspects of human life. As such, it is interlinked with many other SDGs including poverty eradication, food security, clean water and sanitation, health, education, sustainable consumption and production, job creation, the empowerment of youth and women. SDG7 is also instrumental in achieving international climate targets such as those laid out by countries as part of their Paris Agreement commitments.[ii] Three interlinked goals under SDG7 on energy access, renewable energy deployment and energy efficiency serve to extend modern energy services universally while making the global use of energy more sustainable.

KEY FINDINGS

▶ Progress to-date is not sufficient to achieve SDG7 and meet internationally agreed climate targets.

▶ Coordinated inputs from the European Union and its Member States into the review process are helping to highlight new approaches and to increase the relevance of these inputs.

▶ With SDG7 an enabler and prerequisite for the fulfilment of a raft of other Goals, reaching SDG7 plays a central part in the whole 2030 Agenda. Interlinkages and possible synergies are, as yet, underexplored but will need to be better understood so that progress can be made across all goals linked to SDG7.

▶ Nexus approaches that build on interlinkages between different SDGs are useful, but there is a need for concrete experiences in bringing together communities from different sectors, and in balancing out trade-offs between different Goals.

▶ The current finance gap requires targeted approaches to mobilise additional finance flows and leverage more private capital if SDG7 is to be achieved.

▶ The Least Developed Countries and areas with high energy access deficits within countries - such as rural areas and urban slums - need more support, including through distributed energy technologies.

▶ National monitoring capacities in many developing countries are still insufficient and require support if they are to report on progress to the international standards being set.

In 2018, SDG7 will be up for its first thematic review at the High-Level Political Forum (HLPF) of the United Nations. This will serve as a critical milestone to take stock of progress to-date in achieving SDG7 and to reflect on the way forward. The linkages between energy and other SDGs will be particularly important. The review of SDG7 provides a key opportunity to build on current momentum in the energy sector and to further explore integrated and coherent approaches to work across different sectors. To support engagement with this process, this EUEI Policy Brief summarises the current state of efforts towards SDG7, describes major stepping stones in the thematic review of SDG7, and highlights key challenges and opportunities for achieving universal access to affordable, reliable and sustainable energy. As such it aims to inform all Member States about the process, and highlight opportunities and issues where coordinated European input and action can provide unique added value.

Progress-to-date on SDG7

Progress towards the three sub-targets of SDG7 – universal electricity access, substantial increase of the share of renewable energy in the global energy mix, and doubling energy efficiency – does not demonstrate the trends required to meet them.[iii] The global electricity access rate increased modestly from 85.0% in 2012 to 85.3% in 2014, but with the electrification rate slowed down from previous years. Access to clean fuels and technologies for cooking reached 57.4% globally in 2014, which means that the share of people with access to clean cooking has effectively stagnated since 2012. The renewable energy share in total final energy consumption rose only slightly from 18.1% in 2012 to 18.3% in 2014, continuing an upward trend observed since 2010. The energy intensity of the global economy decreased by 2.1% on average annually between 2012 and 2014.[1]

Large regional differences persist, especially for the targets on energy access. While many regions have already reached universal energy access, severe challenges remain: On the African continent (excluding North Africa), electricity access stood at just 37% in 2014. Even though 86 million people were newly connected to the grid, global population growth is expanding at almost exactly the same pace. While urban areas across the world already have close to universal access at 96%, rural areas, and fast-growing cities in Africa and the Asia-Pacific region are lagging behind. About 80% of the 1.06 billion people without electricity live in just 20 countries; these are denoted as "high impact countries" by the SEforALL initiative as a result.

For access to clean cooking, the gap is even greater, with 3.04 billion people living without access. In Asia-Pacific, only 51% had access to clean cooking in 2014, and in Africa (excluding North Africa) a mere 12%. In this field the differences between rural and urban areas are even more pronounced, with only 22% of the global rural population having access to clean cooking.

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[1] These trends appear to be continuing beyond 2014.
More recent data shows that: Electricity access (2016) increased modestly to 86% while access to clean fuels and technologies for cooking (2015) was 62% (IEA, Energy Access Outlook 2017). Renewable energy (2015) reached 19.3% of global final energy consumption (REN21, Renewables 2017 Global Status Report), and energy efficiency improvement (2016) slowed to -1.8%.
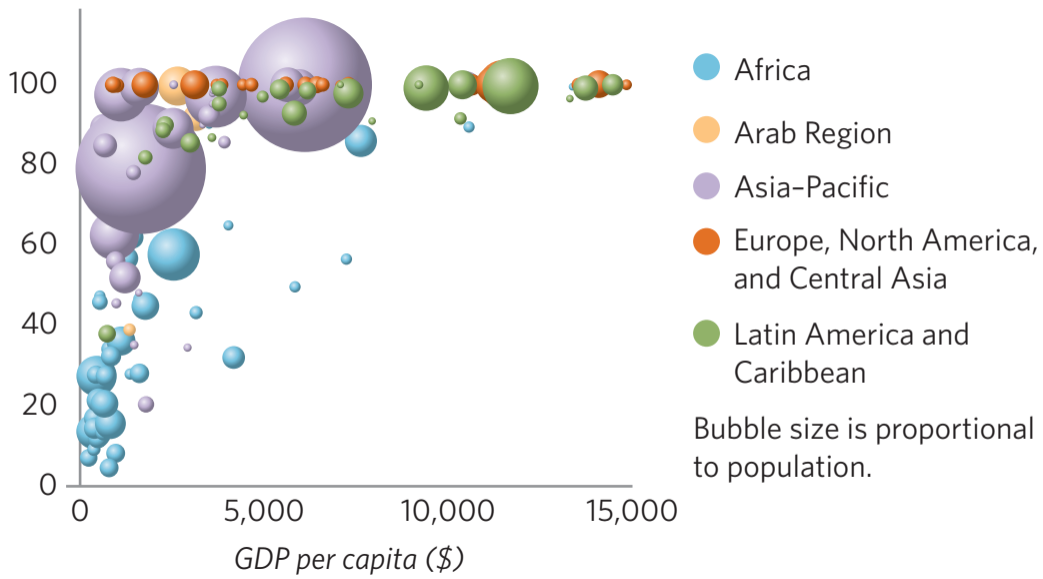
Figure 1: Regional differences in access to electricity, 2014
Source: IEA and the World Bank 2017[iv].

The International Energy Agency (IEA) has modelled current trends under its 'New Policies Scenario', which takes into account new policy commitments made at COP21, and favourable technology trends such as the steep reduction in the cost of renewables, notably solar photovoltaic (PV). The IEA finds that recent efforts fall short of meeting the targets. This (quite ambitious) scenario estimates that the global community will not reach all sub-targets of SDG7 by 2030: Energy access will reach 91% for electricity and 57% for cooking, the share of renewable energy will reach 15% instead of 36%, and energy efficiency will improve at a rate of 2.1% instead of 2.6% (see Figure 1 above).
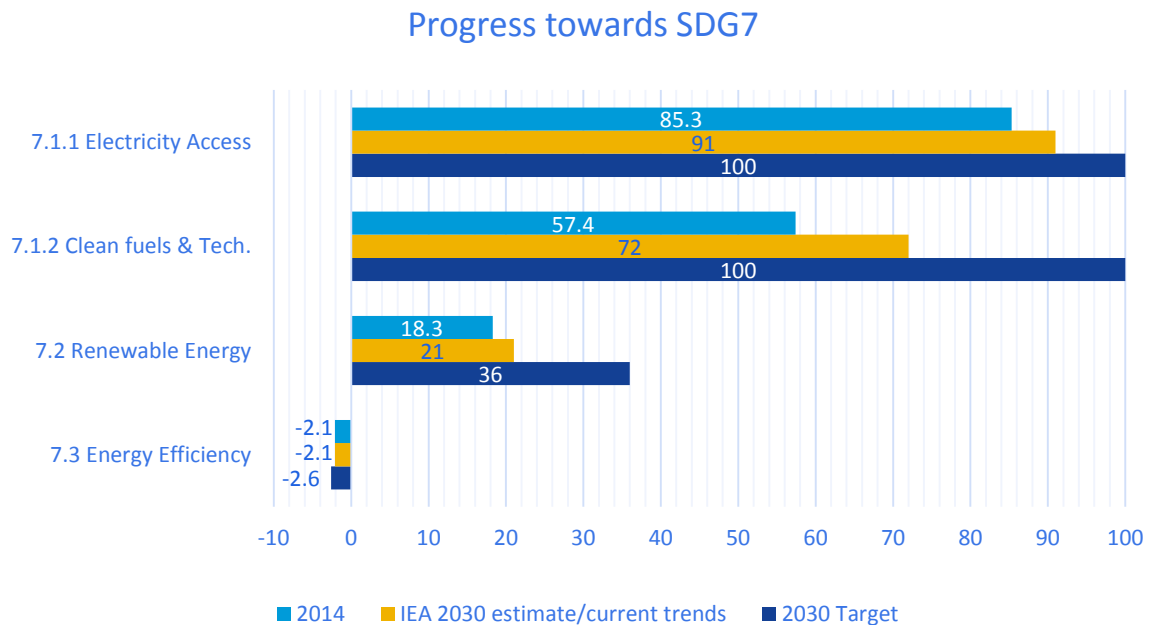

Figure 2: Progress towards SDG7
Source: IEA and the World Bank 2017

Finally, while substantial work has been ongoing to highlight progress against the sub-targets of SDG7, the impact of this lack of progress on other SDGs has not been systematically researched. Key SDGs, for example health, water, food, gender, sustainable consumption and production, decent work, all have energy access as a prerequisite for their being achieved. These concrete interactions between sectors are currently not captured in reporting on SDG7 but pose a significant challenge to the 2030 Agenda if they are not better understood and acted upon.

Financing

European Institutions and Member States have recognised the energy access challenge. A recent analysis of European development cooperation in the context of the EU Energy Initiative (EUEI) showed that between 2010 and 2015, € 27.5 billion were committed for energy, representing 8% of all EU commitments for official development assistance (ODA).[v] European donors have used their ODA commitments to pioneer new approaches in promoting sustainable energy and have been vocal supporters of placing this topic on the international agenda.

Nevertheless, the financing needs to achieve SDG7 are significant and largely surpass current financing flows (see Table 1 below). The IEA estimated annual investment required for achieving universal energy access by 2030 to be $ 52 (€ 49)[2] billion per year.[vi] For the renewable energy target, the IEA and IRENA estimate that investments of $ 770 (€ 721) billion annually are needed, whereas energy efficiency necessitates annual investment of $ 650 (€ 609) billion.[vii]

Domestic public and private investments are the most important ingredients to achieving SDG7. ODA and public climate finance have a key role to play in leveraging direct additional state and private funding. It is estimated that in 2014, $ 43.5 (€ 40.8) billion of bilateral and multilateral climate finance mobilised a further $ 16.7 (€ 15.6) billion of private sector finance, representing a ratio of 0.38.[viii] Other studies find even significantly higher ratios of up to 3.6 for every Euro invested.[ix] This means that ODA can have a significant impact through its potential to leverage funds. In addition, targeted capacity building for the private and public sector, as well as users of energy, can make a significant impact in accelerating the transition to sustainable energy for all.

The current focus of European ODA is on renewable energy. The analysis of the allocation of ODA commitments by European donors in the context of the EUEI shows that renewable energy (€ 1.6 billion) made up the largest share of the € 4.6 billion of ODA annually dedicated to energy on average in the 2010 to 2015 period. Only € 0.2 billion went explicitly to providing access and € 0.4 billion towards energy efficiency.[x] Table 1 shows a comparison between required and actual investments and EU ODA,[3] revealing that especially energy access and energy efficiency still lack the attention that they would need to receive to reach SDG7.

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[2] EUR (€) amounts converted from USD ($) used the average 2015 exchange rate: 1 USD = 0.937 EUR.
[3] It is important to note that due to the way in which EU funding towards these three objectives was assessed – using predetermined 'markers' to categorise the investments recorded in the database of the OECD Development Assistance Committee (OECD DAC) – only around half of the € 4.6 billion of EU energy ODA fitted under one (or more) of them. This suggests that: these markers miss a number of projects that contribute to one or more of the SDG7 objectives; the links are not explicit between the projects/programmes and SDG dimensions; or a sizeable portion of the energy ODA isn't being invested with SDG7 as a focus. As noted elsewhere, a revision of the OECD DAC markers to map ODA to the SDG targets would help solve these problems.

	Required Global Annual Investments (to 2030)	Actual Global Annual Investment (2015)	Average Annual EU ODA (2010-2015)
Energy Access	49	18	0.2
Renewable Energy	721	265	1.6
Energy Efficiency	609	207	0.4
Total	1 379	490	2.2

Table 1: Required and actual annual investments, and EU ODA commitments towards SDG7
(in € bn)[4]

Sources: OECD/IEA 2017[xi], IEA 2016[xii], IRENA 2015[xiii], IRENA 2016[xiv], SEforALL 2017[xv].

Additionally, support does not seem to go to the countries that are most lagging behind in terms of energy access. Seven of the ten countries that received the largest shares of European energy ODA have energy access rates greater than 90%.[xvi] SDG7 emphasises a focus on infrastructure expansion and technology upgrading in least developed countries (LDCs), small island developing states (SIDS), and landlocked developing countries (LLDCs). LDCs only received 10% of European ODA, with SIDS receiving just 1.3% (see Table 2), even though they have a large number of 'high-impact countries' offering easy wins that would make a significant difference.

Country Group	Average Annual Energy ODA Received from EU (€, billion)	Share of Total Annual Average EU Energy ODA (%)
Least Developed Country	0.46	10.0
Small Island Developing States	0.06	1.3
Landlocked Developing Countries	0.35	7.6

Table 2: Average annual EU energy ODA received by LDCs, SIDS and LLDCs (2010 to 2015)
Source: EUEI PDF [xvii].

Monitoring

Reliable data about the targets of SDG7 is necessary to inform policy decisions, both on the national and the global level. Especially for energy access, it is not clear how monitoring will take place. The existing international datasets for access to cooking (WHO's Global Household Energy Database, and the IEA World Energy Statistics and Balances) and electricity (World Bank's Global Electrification Database, and the IEA World Energy Statistics and Balances) promote a binary definition of access, i.e. either a household is connected or not. As a result, these datasets omit some issues, including access through off-grid and mini-grid solutions, problems in supply and quality such as long blackouts or voltage fluctuations, and the services rendered. The focus on fuels in the current definition of modern cooking

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[4] European ODA amounts were interpreted by creating 'markers' for the three categories: energy efficiency - if the text "energy efficiency" appears in the project title; energy access – if one of the following appeared in the project title: 'access', 'electrification', 'rural'; renewable – if the word "renewable" appeared in the purpose column

solutions is also blind to the role of the cookstove, which can have a major influence on efficiency, health impacts and safety.

The Global Tracking Framework (GTF) that was developed by stakeholders in the context of the SEforALL initiative to counter these shortcomings is currently not fully integrated into the SDG monitoring process. Furthermore, the role of national governments in collecting and continuously monitoring this data is still unclear. This area might still require capacity building support for statistical offices to capture the relevant data to the quality and in the fetial international monitoring efforts increasingly call for and in such a way as to enable comparable, transparent and consisting reporting on te 2030 Agenda.

Review Process of SDG7

SDG7 will be reviewed at the 2018 High-Level Political Forum[xviii] which will take place on 9-18 July at UN Headquarters in New York, including a three-day Ministerial Segment from 16-18 July. The thematic review of SDG7 takes place under the theme "Transformation towards sustainable and resilient societies", together with SDGs 6 (water and sanitation), 11 (sustainable cities), 12 (sustainable production and consumption), 15 (terrestrial ecosystems) and 17 (means of implementation and partnerships). In addition, 48 countries will be conducting voluntary national reviews. A ministerial declaration will emphasise commitments and provide guidance for the follow-up. The 2017 HLPF featured 147 side events, nine learning courses, and a number of special events.

The process for thematic reviews of individual SDGs is introduced by UN General Assembly resolution 70/299, which mandates the HLPF to "discuss a set of Goals and their interlinkages" and sets the themes and the SDGs to be reviewed. It also reaffirms the role of the UN Department of Economic and Social Affairs (UN DESA) in supporting this process. Nevertheless, the details of thematic reviews are not defined by this Resolution and evolve with every review.

The thematic review process of SDG7 is led by UN DESA, which serves as Secretariat for UN Energy. To support this process, an "ad hoc informal multi-stakeholder technical advisory group on SDG7" (Advisory Group) was set up at the Symposium on SDG7 (Energy) to help guide the preparations toward the HLPF 2018 and beyond. This group includes government representatives as well as key institutions in the energy sector. In addition, the custodian agencies for SDG7 (WHO, World Bank, IEA, UN Energy, UNSD, IRENA, OECD and UNEP) are involved in the monitoring and follow-up of sub-goals. SEforALL had an important role in including energy in the 2030 Agenda and is involved in the process in an advocacy and monitoring function (via the Global Tracking Framework, implemented by World Bank and IEA).

Several international meetings and documents will feed into this process. Figure 2 provides an overview of the most important milestones, which are elaborated below.
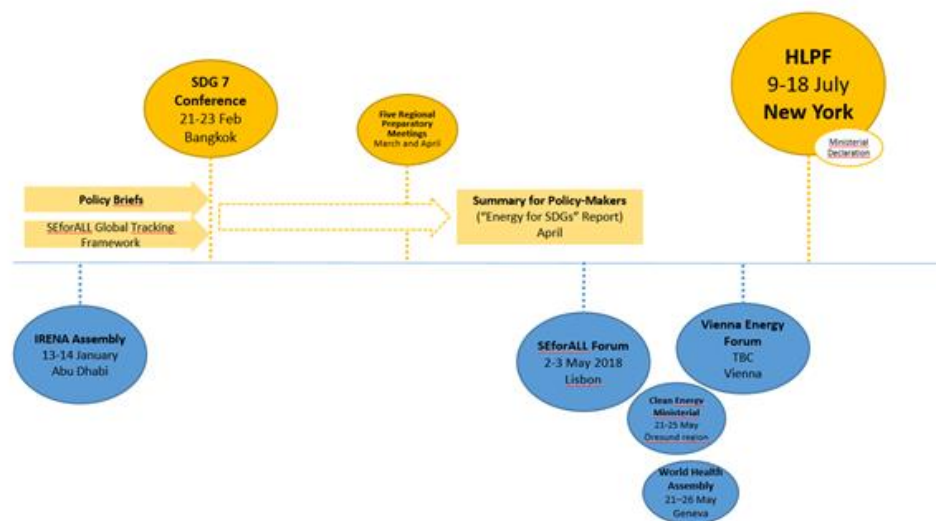
Figure 3 Key milestones for engagement in SDG 7 review

UN meetings and international energy conferences

In the run-up to the HLPF, a number of formal UN meetings and other international energy conferences will feed into the process.

UN meetings

Global SDG7 Conference, 21-23 February 2018, Bangkok, UN ESCAP. This is *the* central thematic UN meeting to prepare substantive input on the review of SDG7. It will facilitate exchange among member states and other stakeholders, and consider challenges and opportunities for furthering progress towards 2030, with a focus on 1) Progress toward the achievement of SDG7; 2) Interlinkages between SDG7 and other SDGs; 3) Means of implementation, including finance, capacity building and innovation. The programme consists of side events on 21 February and two high-level segments on 22 and 23 February. The Advisory Group will meet on the margins of the meeting.

Regional Preparatory Meetings: Five preparatory meetings organised by the UN Regional Commissions will provide inputs for the HLPF by sharing of experiences and best practices at the regional level. The meeting of The United Nations Economic Commission for Europe (UNECE) will take place on 1-2 March 2018 in Geneva.

Other international energy conferences

SEforALL Forum, 2-3 May 2018, Lisbon, Portugal, will present recent data on progress from the Global Tracking Framework with a particular focus on universal energy access, and provide a marketplace for leaders from government, business and civil society to discuss scaling up solutions to reach SDG7.

Vienna Energy Forum, 14-16 May, Vienna, Austria, is traditionally focused on the SDG process and is expected to provide strong signals for the review of SDG7.

Clean Energy Ministerial, 21-25 May 2018, Öresund region, Denmark, will discuss "Energy Integration and Transition" with a focus on the deployment of existing and new clean technologies.

World Health Assembly, 21–26 May 2018, Geneva, Switzerland, will discuss health aspects of renewable energies and clean cooking.

Background documents and declarations

Several documents will feed into the SDG7 review. 25 **Policy Briefs** are being developed as background papers by groups of organisations, coordinated by UN DESA. They cover individual targets and how to reach them, interlinkages with other SDGs, regional perspectives, and the energy transition. These policy briefs will be posted for external consultations on the website for the Global SDG7 Conference by 9 February. The findings of the SEforALL Global Tracking Framework will also inform the review of SDG7.

A "**Summary for Policy Makers**" ("Energy for SDGs" report) will set the main direction for the review at the HLPF. The report will be developed by April, building on the Policy Briefs, the outcome of the Global SDG7 conference and other inputs. In parallel, the drafting process for the Ministerial Declaration will be organised through the New York missions of UN Member States in early summer and will draw on the Summary for Policy Makers.

Engagement by EU Member States

There are several avenues for engagement by EU Member States in the SDG7 review process. The participation of the European Commission in the Advisory Group helps ensure that European interests, including those of Member States, are represented in the review process. The SDG7 conference taking place in Bangkok in February is an initial "warm-up" in the spirit of working together towards the full review, and serves as an important first stock-taking. This is an excellent venue for networking and positioning specific issues for the review process. While the topics for Policy Briefs have already been established, the commenting and review process still provides some possibilities to include issues in the respective papers. The busy conference agenda in the early summer will provide additional opportunities to highlight issues of concern to EU Member States. The HLPF will be the main forum for high-level policy messaging and announcements of new initiatives around SDG7, as well as highlighting activities and research in side events. Joint initiatives by coalitions of EU countries and others can send a strong signal for accelerating progress, and the HLPF offers an excellent, high-profile platform for this.

Analysis

The review of SDG7 provides an excellent opportunity for EU Member States to increase the global focus on sustainable energy, highlight the work that has been done in recent years, and to point to areas that need further attention.

As it is the first review of SDG7, the process is characterised by some improvisation in the absence of a "blueprint" or formalised process. Still, the process is showing good progress to-date, with both the preparations for the SDG7 conference and the drafting process for the Policy Briefs underway well in advance of the HLPF. Nevertheless, the process for the review could be made more transparent – most of the information on the process and opportunities for countries or stakeholders to engage which is included in this briefing is not publicly available. By presenting the main milestones of this process, for example on the website of the HLPF[xix], the involvement of a wider group of stakeholders could be facilitated and transparency improved.

Furthermore, the composition of the Advisory Group reflects the realities of global energy governance with the main international organisations in this area well represented, and a lack of diversity amongst the governments represented; developing countries are notably under-represented in this group. Important stakeholder groups, such as the private sector and civil society which are essential for

building support and mobilising investments to achieve SDG7 are also notable in their absence from the Ad Hoc Advisory Group group. This omission is also reflected in the selection of topics for Policy Briefs which, for example, do not tackle private sector engagement.

Opportunities for European Institutions and Member States in the SDG7 Review Process

The SDG7 review process presents an excellent opportunity to increase the momentum and point to gaps in achieving the goal of ensuring access to affordable, reliable, sustainable and modern energy for all. The following sets out key points for the EU Member States to consider as global attention shifts to this central goal.

1. Current progress towards the targets of SDG7 is still largely insufficient to expect their achievement by 2030. Inherent to this challenge are the gaps in current financing: **Annual commitments by countries are not nearly sufficient compared to the estimated overall finance required to achieve the SDG7 goal. Funding must clearly be ramped up.** A particular focus should be on how **ODA and public climate finance can direct finance flows and leverage private capital, for example through blended finance approaches.**

   Blended finance involves strategically using public concessionary finance to reduce risks for specific investments and thereby leveraging significant investments from other actors. There is, therefore, a need for greater coordination between public and private finance providers, striving to reach the optimal balance between public and private funds for specific investments. Europe is uniquely placed in this area, having already gathered relevant experience of the necessary mechanisms, policies and reporting frameworks to make blending a success. The European Institutions and Member States would therefore be well placed to capitalise on this, building on and expanding their commitments and activity in this field as international attention focusses on energy. An update and revamp of the markers used in the OECD DAC database would help improve the tracking of ODA spending, aligning them with the sub-targets of SDG7 and enabling Europe to showcase its commitments.

2. There are large differences between countries, and within countries in achieving the goal of energy access. While some countries are closing the access gap, some countries, especially poor and small ones, as well as rural areas and urban slums, are being left behind. This also holds for vulnerable and marginalised groups, including women and girls, displaced people and the disabled. **If universal energy access is a priority goal of Europe, it is imperative to redirect funds towards 'high impact' countries for energy access'** (those with the largest access deficits).

3. Universal energy access cannot be achieved by extending costly grid infrastructure to very remote areas. Distributed technologies can play a key role in rapidly increasing energy access for communities in remote areas and in ensuring the financial health of utilities. **Increased support for small-scale, distributed technologies, based on cost-benefit analyses and long-term**

national strategies for moving customers up the energy ladder can be a key element in achieving this goal.

4. While interlinkages between SDGs are a key focus of the review process, in practice **there remains a pressing need to work more coherently across sectors.** Concrete examples of both approaches that bridge sectoral divides, as well as of approaches which bring different communities within a sector together are needed. The HLPF provides an excellent opportunity to highlight synergies and potential trade-offs between sectors, particularly for those SDGs being reviewed, i.e. the water and sanitation sector, cities, and sustainable production and consumption. In addition, there should be a streamlining with overarching topics such as climate change, itself represented through SDG13.

5. **Monitoring SDG7 should receive heightened attention.** Firstly, the role of the Global Tracking Framework for SDG7 monitoring should be clarified. Secondly, the GTF – despite being designed with the aim to counter the shortcomings of using binary indicators, like for example issues of quality of supply – is currently not fully integrated into the SDG7 monitoring process. Increased integration and moving beyond binary indicators that can capture quality and service aspects should be addressed. Further, national monitoring of energy data should be improved to provide a sound and timely basis for decision-making at both a national and global level. Capacity-building for local monitoring agencies can support national data gathering, forming the basis for tracking progress towards SDG7 and decision-making.

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[xvi] The ten largest recipient countries (ordered from largest to smallest recipient) of European energy-related ODA (2010 to 2015) were: India, Turkey, Morocco, Egypt, Kenya, Ukraine, South Africa, Viet Nam, Indonesia, Serbia. Of these, only India, Kenya and South Africa have access rates below 90%.

[xvii] [xvii] EUEI PDF, 2018. EUEI Policy Brief 3 "Latest Insights into Europe's International Energy Development Cooperation Portfolio". Retrieved from http://www.euei-pdf.org/en/euei/advisory-services-to-eu-member-states/euei-policy-briefs-on-key-issues-in-european-energy

[xviii] The United Nations High-level Political Forum (HLPF) is the central platform for follow-up and review of the 2030 Agenda for Sustainable Development and the Sustainable Development Goals, as mandated in General Assembly resolution 70/1. This includes a review of progress, including cross-cutting issues between individual goals, as well as high-level policy guidance. The forum was created at the United Nations Conference on Sustainable Development in June 2012 (Rio+20) and reports directly to the Economic and Social Council (ECOSOC). Developments in the run-up to the conference are reported by the SDG Knowledge Hub http://sdg.iisd.org/tag/hlpf-2018/

[xix] https://sustainabledevelopment.un.org/hlpf/2018

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