FINANCING SUSTAINABLE POWER SUPPLY

I/ CONTEXT

The International Energy Agency's (IEA) Net-Zero Emission (NZE) scenario projects a pathway for the global energy sector to achieve net-zero carbon dioxide (CO_2) emissions by 2050. In this scenario, global warming peaks at just over 1.5°C in 2050 and declines to about 1.4°C by 2100 with a 50% probability.

To that end, the IEA compares fossil fuels to a set of "clean energy" technologies and makes several observations as to what would be needed to keep us on a net-zero trajectory, with 2023 as the baseline.

Regarding investments:

- Phasing out fossil fuels does not mean reducing investments in the energy sector, quite the opposite. The challenge is not only to reallocate existing investments from fossil fuels to "clean energy" but also to add new investments. Indeed, the requirements for financing the energy transition are much higher than current levels of investment. To enable the transformation of our energy system, **annual investments in the energy sector must rise from US$2.8 trillion in 2023 to US$4.7 trillion (+67%) by 2030**[1].

- Those investments must be focused on several key aspects of the energy transition: "clean" power generation, modernization and flexibilization of the electricity networks, energy efficiency, and transformation of end-uses. Concretely, **annual investments in the energy transition must more than double (x2.3) by 2030**, from US$1.8 trillion in 2023 to reach US$4.2 trillion[2].

- Investment in all **these items together must be ten times greater than the level of investment in fossil fuel by 2030**[3]. In other words, for every dollar invested in fossil fuels[4], $10 must be invested in the energy transition. That includes: $6 in "clean" energy supply (mostly power) and $4 in energy efficiency and end-uses. This gives us the **6:1 ratio of financing for power supply**.

Regarding the development of power capacity:

- Global installed capacity of renewables must rise from 3,600 GW to 11,000 GW by 2030, of which 80% are wind and solar PV[5]. This means that new global **capacity of**

[1] IEA, World Energy Outlook 2023, p197.
[2] Ibid. p49.
[3] Ibid.
[4] Maintenance and gradual phase-out of existing fields.
[5] IEA, World Energy Outlook 2023, p279.

wind and solar energy installed every year must quadruple, from 295 GW in 2022 to reach 1140 GW per year by 2030.[6]

Energy supply, efficiency, and end-uses[7] are equally important but require different and specific approaches. Reclaim Finance expects banks to adopt detailed public targets for the energy transition, including financing ratio and financial targets specifically for power supply.

- **This note focuses on our recommendations for sustainable power supply and the 6:1 ratio.**

II/ HOW TO DEFINE SUSTAINABLE POWER

The need for urgent action grows daily as we fail to initiate a full transformation of our society and the energy system which lies at its core. There is no more time to waste if we hope to keep the 1.5°C target alive, preserve our global ecosystem and maintain a liveable planet.

The IEA's projections are based on a definition of "clean energy" that includes technologies that are incompatible with a rapid and just transition of our energy system, such as biomass[8] or nuclear energy. It also bets on the use of immature technologies, or technologies that are non-existent at a commercial scale, such as Carbon capture, use and/or storage (CCUS)[9], and hydrogen produced using fossil fuels and CCUS.

Those technologies, whose development is uncertain, are associated with damaging social, environmental and climate impacts or risks. They pose too great a risk to our ability to meet the 1.5°C objective and global biodiversity protection targets. Therefore, they should not be included in banks' energy transition finance targets. As the IEA's NZE scenario gives only a 50% chance of limiting global warming to 1.5°C, removing those technologies increases the chances of success and does not detract from the relevance of aligning with the investment targets set out in this scenario[10].

We encourage financial institutions not to use the terminology "clean". It implies the mistaken idea that there are energy sources that have no impact as opposed to "dirty" energy sources that have harmful impacts. Every kWh of electricity production requires the extraction and consumption of natural resources, has a spatial footprint, and produces greenhouse gases emissions. Over the entire life cycle, all energy sources have an impact on the climate, on ecosystems, and on people. Energy cannot be "clean" out of context. For similar reasons, "low carbon" or "renewable" sources do not encompass all environmental and social aspects that matter for a just and successful transition. Consequently, these terms should not be used by financial institutions to define their targets.

Instead, we prefer the use and adoption of targets for "sustainable" power and encourage financial institutions to provide a clear definition of the terminology that they use and detail what is included in their targets.

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[6] IEA, Net Zero Roadmap, September 2023 update, p91.

[7] **Energy efficiency** – equipment and technologies in buildings, industry and transport that improve efficiency of a process, that is lower the energy used for the completion of a given goal. Energy efficiency measures often focus on reducing power loss and better power demand management, and usually result in reduced energy demand and consumption. E.g., buildings renovation. **Sustainable end-use** – direct use of sustainable power, electrification in buildings, industry, and transport.

[8] See Reclaim Finance's factsheet on bioenergy.

[9] See Reclaim Finance's factsheet on CCUS in power.

[10] See Reclaim Finance's analysis of IEA's NZE.

- We define **sustainable power supply** as follows[11]:

Sustainable power supply includes power produced by sustainable energy sources, development of which is guided by robust human policies[12], such as the UNGPs[13] or FPIC[14]. This might include solar (photovoltaic and thermal), wind (on and offshore), some hydro, wave and tidal, and geothermal. This also includes developing more flexible **electricity grids**[15] (including transmission & distribution infrastructure, battery storage and seasonal storage), **modernization** (new and refurbishment) and **off-grid sustainable power** (mini-grid or stand-alone).

Note: green hydrogen is excluded from the definition of "sustainable power supply" as evidence shows that, contrary to some claims from the gas industry[16], green hydrogen will not replace natural gas for residential heating or power generation, nor become a major storage technology but will have a limited role in a sustainable power system. Its use should be dedicated to the decarbonization of specific sectors (such as steel and maritime transport).

Unsustainable power sources are excluded. That comprises fossil fuels with CCUS, nuclear energy, industrial-scale biogas and biomass-fired power plants with or without CCUS, hydropower plants that do not comply with the recommendations of the World Commission on Dams, waste-to-energy, and any form of hydrogen that is not produced directly from sustainable energy source, any non-fossil fuel power plant with significant share of fossil fuel backup or dedicated to support fossil fuel infrastructure.

III/ RECOMMENDATIONS FOR CREDIBLE COMMITMENTS

To fully engage in the energy transition, in addition to phasing out fossil fuels, banks must make concrete and science-based commitments with defined time horizons to increase their financing for sustainable power supply.

Define a transparent and accurate scope for sustainable power supply

As stated in part II, banks should avoid vague terms such as "renewables", "low carbon" or "clean". We encourage banks to:

- **Refer to "sustainable" power supply and explicitly define the scope** of the energy sources and technologies included, as previously described.

Set dedicated financial target and financing ratio for sustainable power supply

Banks' climate strategy should aim to align their financing with the IEA's NZE trajectory of increasing investments, i.e. more than doubling annual financing to the energy sector and in particular increasing financing for the energy transition. We encourage banks to:

[11] See Reclaim Finance's detailed article.
[12] See BHRRC's recommendations for human rights in the renewable energy sector.
[13] See United Nations' Guiding Principles (UNGP) on Business and Human Rights
[14] See Free, Prior and Informed Consent (FPIC) principles
[15] Renovation, expansion, and improvement of grid flexibility could represent 45% of power supply financing: https://www.energy-transitions.org/publications/financing-the-transition-etc/
[16] https://influencemap.org/landing/-a794566767a94a5d71052b63a05e825f-20189

- Set a **dedicated financial target for sustainable power supply and commit to achieving a 6:1 ratio of financing toward power supply by 2030**, i.e. every dollar toward fossil fuels is matched by 6 dollars for sustainable power supply.

In addition to a transparent scope (as defined previously), financial products and services covered by the targets should be explicitly detailed and it should distinguish power generation, power storage and power transmission & distribution.

Banks need to set both targets for 2030 at the latest. Banks should not integrate financial services dedicated to M&A or refinancing in their target, both targets should exclusively cover the development of new capacity.

Apply proper transparency on data disclosure

Banks should **publicly disclose their energy financing ratio and their financial support for the energy transition and sustainable power supply.** This support should be detailed geographically and by sector:

- The three main sectors of power supply (production, storage, grids). The breakdown should detail energy sources and technologies.
- The geographical breakdown should show financing for (1) non-OECD countries, (2) OECD countries excluding Europe, (3) Europe and (4) China.

Note: though refinancing and M&A should not be accounted for regarding targets, it should be included in the reporting.

IV/ KEY PRINCIPLES FOR CREDIBLE COMMITMENTS

To be credible, banks' commitments must comply with the basic principles listed below.

SCOPE

Commitments should apply to all banking activities, for all business lines, branches, subsidiaries, and joint ventures for banking groups worldwide. They should cover all financial services, including at least:

- **Lending activities**, including retail, SMEs, term loans (dedicated or corporate, bilateral, or syndicated); project finance via special purpose vehicles/companies; revolving credit facilities; bridge loans; reserve-based lending; borrowing base facilities; export finance and all trade finance facilities; and acquisition finance.
- **Underwriting and structuring activities**, including share issuances as well as bond issuances, both dedicated issuances such as project bonds and general-purpose corporate financing, as well as securitization. This includes green bonds and sustainability-linked bonds.
- **Advisory services** such as mandated lead arranger activities (or "lead arranger", or "structurer") for bond issuances or syndicated loans, Mergers and Acquisitions (M&A) advisory activities, or index funds' management activities.
- Activities in debt and equity capital markets.

AMBITION

Commitments should be aligned with the objectives of limiting global warming to 1.5°C and achieving carbon neutrality of the electricity sector by 2035 in "advanced economies"[17] and 2040 worldwide. Targets for sustainable power supply should also be at least consistent with the NZE's trajectory for financing (6:1 ratio) sustainable power supply development by 2030.

TIMING

Commitments should be set for 2030 at the latest. The baseline year should not be earlier than two years before the target is set.

TRANSPARENCY & REPORTING

The scope of energy sources and technologies should be public and detailed by item (power generation, power storage, power grids). Financing and capacity should be broken down by item (power generation, power storage and power grids) by energy source, by financial service, and by geographical region. The ratio of financing for sustainable power supply compared to fossil fuels should be disclosed and updated yearly.

Targets and their baseline year should be public and detailed by item (power generation, power storage, power grids), by source and technology, by financial service, by geographical region. Targets should not cover M&A, refinancing or transferred capacity which should be reported separately. Progress should be published each year using metrics that are consistent with the targets.

Terms and definitions used to refer to any scope, item, energy source or financial service should remain constant over time. For instance, banks should not refer to "renewables" for one target and "low carbon energy" for another.

Banks should disclose the different elements mentioned in this document in a document detailing the strategy for aligning financing to the power sector with the 1.5°C objective. To be considered credible, this strategy should be comprehensive and not be limited to the power sector decarbonization targets that banks may have.

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[17] The IEA defines advanced economies as "OECD regional grouping and Bulgaria, Croatia, Cyprus, Malta and Romania".