At SB60, WWF calls for a just Energy Transition Package to be agreed that:

- Is 1.5°C aligned;
- Is science based and credible;
- Ensures the transition is sustainable, fair, and equitable between countries and within countries.

**WWF’s ENERGY TRANSITION PACKAGE**

**Faster, Greener, Fairer**

- A Just Energy Transition needs to be aligned with social and environmental safeguards to ensure that human rights are considered and that disruption to nature is minimized.
- All new NDCs should articulate the respective Parties’ response to the (energy related) outcomes of the first Global Stocktake as listed in paragraph 28 in CMA 5, including:
  - Upscaling conditional and unconditional energy related strategies and technology options pre-2030 to ensure countries collectively get on track to meet the goals of the Paris Agreement, according to local circumstances.
  - NDCs should consider how energy transitions can help countries shift to low carbon and climate resilient development trajectories. Energy Access should be a priority for international cooperation.
  - Measures and policies for the creation of decent work and quality jobs in 100% renewable energy sectors should be part of all NDCs, in line with local transition plans.

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<tr>
<td>- Complete phase-out of all fossil fuels well before 2050</td>
<td>- Implement the tripling current renewable energy capacity by 2030</td>
<td>- Implement the doubling the rate of energy efficiency improvements by 2030</td>
<td>- An immediate end to all fossil fuel subsidies</td>
<td>- After equitable reduction in overall energy demand and energy efficiency, electrification should be given priority over other energy transition strategies to cut emissions in the energy sector - with renewable sources replacing fossil fuels at the energy matrix</td>
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<td>- Coal phase-out by 2030 in developed countries, and by 2040 in developing countries</td>
<td>- Benchmarks on renewable energy to replace fossil fuels in the energy matrix</td>
<td>- Efficiency measures need to be accompanied by an equitable reduction in overall energy demand, particularly in developed countries.</td>
<td>- Developed countries should support developing countries to achieve their energy transitions, including through use of public finance</td>
<td>- Electrification of low/medium industrial heat processes, vehicles and building heating should be prioritized</td>
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<tr>
<td>- Oil and gas phase-out well before 2040 (by 2035 for the power sector) in developed countries and latest by 2050 in developing countries</td>
<td>- Reach 100% sustainable renewable energy well before 2050, focusing on wind and solar</td>
<td>- CCS is a limited, expensive, last resort solution with niche applications and should not compromise innovation or divert public and private investment in renewables.</td>
<td>- As required by art. 2.1 c of the Paris Agreement, public and private financial flows should change to support the energy transition. A 6:1 sustainable power supply to fossil fuel financing ratio should be achieved by 2030 latest</td>
<td>- Electrification is essential to guarantee developing countries have energy access and leapfrog to RE without fossil gas as a transitional fuel.</td>
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<tr>
<td>- No new coal, oil, and gas exploration</td>
<td>- CC is a limited, expensive, last resort solution with niche applications and should not compromise innovation or divert public and private investment in renewables.</td>
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WWW'S ENERGY TRANSITION PACKAGE

With the current period of global warming rapidly being replaced by an era of "global boiling", the emerging political importance of a global transition from fossil fuels to renewables requires a new, more intense, focus on energy-related activities. This Energy Transition Package sets the minimum criteria to be met at COP29 for a faster, greener, fairer and funded energy transition.

Cross Cutting Principles: Faster, Greener, Fairer
We reinforce that the current global targets of tripling renewable energy capacity globally and doubling the global average annual rate of energy efficiency improvements by 2030 provide a baseline; faster action is needed. We must also ensure that the rapid uptake of renewables does not compromise biodiversity.

Just transition is reflected in only 38% of NDCs and only 17% include a dedicated section on the issue. Countries should explicitly recognize that energy transitions and sustainable development are interdependent and plan this into their NDCs and LT-LEDs, deepening their understanding of pathways and wider policy frameworks, and identify sources of finance.

Fossil Fuel Phase Out
The world is projected to extract and burn more fossil fuels by 2030 than is consistent with a 1.5°C pathway. New oil and gas fields are incompatible with this vital temperature goal, and new investments in related infrastructure would create stranded assets. Coal needs to be phased out of the energy matrix by 2030, oil and gas in developed countries at the latest by 2040 (2035 for the power sector in developed countries, which must decarbonise sooner than others), and by 2050 in developing countries. CCS (Carbon Capture and Storage) is not an efficient enough and proven at scale technology, and would divert public resources away from the needed transition to renewable energy. At COP29 we need a global commitment to phase out all fossil fuels before 2050, with renewable energy to replace them in the energy matrix.

Renewable Energy Target
We will need to replace fossil fuel electricity with renewable electricity to meet current and future demand from transport, buildings, and industry. A transition focused on wind and solar can result in significantly reduced environmental and human impacts compared with other renewable energy types. The related impacts are much lower than the current fossil-fuel based system. Fortunately, electricity produced by wind and solar are the cheapest forms of energy in many parts of the world, and there is significant potential to build low-cost wind and solar in areas with low impact on people and nature (e.g., pastures, rooftops, degraded land). The global technical potential of utility scale, low-impact wind and solar exceeds the projected 2050 demands under a scenario where all sectors (industry, transportation, etc.) become electrified. Renewable energy must replace

2 IIID, 2022, Navigating Energy Transitions: Mapping the Road to 1.5°C” https://www.iisd.org/system/files/2022-10/navigating-energy-transitions-mapping-road-to-1.5.pdf

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fossil energy, at least tripling current capacity by 2030⁴ (year baseline of end 2022) and new installations must follow social and environmental safeguards.

**An Energy Efficiency Target**
Achieving 100% renewable energy by 2050 will be aided by increasing the efficiency by which energy is used, and by ensuring that energy demand meets comfortable necessity, not excessive use. At COP 28 the mandate to double energy efficiency was set, and should now be detailed and implemented at COP 29. Increasing energy intensity means fewer resources will be needed to build the needed renewable infrastructure, than if such measures are not strongly prioritized in parallel to the renewable rollout. In the longer term, the world should look to reduce overall energy demand, with developed countries taking the lead.

**Finance Needs**
A fair energy transformation will require a massive change in financial flows from fossil energy into renewable energy, as required by Article 2.1c. This has not yet been achieved. Estimates on financial needs range from USD 830 billion⁵ to USD 1550 billion⁶ by 2030. Instead, research has shown⁷ that the 60 largest banks have provided USD 5.5 trillion to fossil fuel companies since 2016. Currently globally, fossil fuels received consumption subsidies of approximately USD 1.1 trillion in 2022 (double the value from the previous year⁸) while renewables only receive USD 146 billion⁹. Shifting this finance is crucial to support the energy transition, but additional finance is needed, including public funds (especially to support developing countries make their energy transition), but also leveraging fair and appropriate private financing. There needs to be significant financial support from developed countries to developing countries to enable them to transition and leapfrog from fossil fuels to build renewable energy economies. Finance is needed not only to deploy solar and wind technologies and for efficiency improvements, but also for grid and micro-grid infrastructure and for energy storage.

**Electrification**
Even with growing demand, electricity can be produced by 100% renewable technologies. Electrifying all we can is key to accelerating the urgent transition away from fossil fuels. Across all sectors, we can increase the rate of electrification by, for example, installing heat pumps and electric cooking in buildings, converting transport to electric vehicles including for public transportation that should be prioritized, and generating industrial heat with electric technologies such as electric arc furnaces and electric boilers. Electrification will enable greater use of renewables and massively increase efficiency, decreasing the level of primary energy supply required to provide the same energy services. Electrification with renewable energy is also the best solution for developing countries to gain energy access without having to rely on fossil fuels as bridging fuels.

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