

#FixTheWEO

September 14, 2021

Dear Dr. Birol,

Please put 1.5°C first not last in the WEO

As a group of over 150 organizations from five continents representing millions of people around the world, we write to applaud the work of the International Energy Agency in producing the Net Zero by 2050 scenario earlier this year, and to urge the IEA to center an improved version of that scenario in the upcoming World Energy Outlook to be released this October.

In your analysis, please put 1.5°C first not last.

The Net Zero by 2050 scenario represents a major step forward for the IEA and we commend you and the team that produced it. Concluding that “[t]here is no need for investment in new fossil fuel supply,” among other critical recommendations for how governments must accelerate the phase-out of fossil fuels, was a groundbreaking and necessary outcome of rigorous analysis of what it will take to achieve the 1.5°C goal enshrined in the Paris Agreement. This leadership is vital, and we encourage you to lean into that leadership in two critical ways in the months ahead.

We urge the IEA to:

- 1) Position the Net Zero by 2050 scenario as the central scenario in the upcoming 2021 World Energy Outlook as well as future WEOs and all other IEA analysis; and
- 2) Strengthen the Net Zero by 2050 scenario by cutting over-reliance on carbon capture and storage (CCS), fossil gas, nuclear energy, and bioenergy.

We also urge you to:

- 1) Maintain your strong focus on the early actions needed to halve carbon pollution by 2030 (with clear indicators or milestones).
- 2) Continue to ask for a 4% global economy-wide energy intensity decrease annually starting now.
- 3) Affirm that advanced economies must reduce carbon pollution much more rapidly than nations in the Global South by 2030, in light of equity and common but differentiated responsibilities.

- 4) Ensure equity and justice with regard to minerals sourcing for clean energy technologies through recycling, circular economy solutions and independent, verifiable responsible mining criteria such as the [IRMA Standard](#).

Center the Net Zero by 2050 scenario in the World Energy Outlook

We were heartened to see your statement of [13 May](#) in which you committed that this new 1.5°C-aligned scenario will be “integral” to WEO 2021 and future WEOs. Making the scenario “integral” would mean making the 1.5°C scenario the central scenario of this year’s WEO as well as future WEOs. It is the WEO that decision makers look to year after year, and which the IEA itself calls the “gold standard of energy analysis.”

The central scenario in the WEO is what governments and investors use as their default for energy decisions, guiding trillions of dollars of investment. The IEA must seize this moment to transform its flagship WEO report, putting a 1.5°C scenario at the center, and focusing each headline, chapter, and graph on the implications of it – including in the annexed data tables.

Strengthen the Net Zero by 2050 scenario by cutting risky modeling bets

While we recognize and applaud that the overall conclusions of the 1.5°C scenario were groundbreaking and, for the first time, pointed squarely in the right direction towards a 1.5°C global warming limit. However, we remain concerned with several modeling decisions that should be corrected to ensure the scenario prioritizes truly clean and proven solutions, rather than technologies that prolong pollution and risk the safety of communities.

While the IEA closing the door on new fossil fuel extraction is a welcome shift, the IEA’s “Net Zero Energy” roadmap continues to underestimate the growth potential and cost declines of solar and wind power. As a consequence of underselling wind and solar,¹ the IEA makes room for dirty, riskier alternatives to meet energy demand: continued use of coal and gas power plants fitted with CCS, prolonged reliance on fossil-based hydrogen, as well as increasing reliance on bioenergy and nuclear power.

¹ For example, the IEA’s scenario forecasts rapid solar capacity growth until 2030 (22 percent per year). But that growth drops to 8 percent per year to 2040 and 3 percent per year to 2050. The latest scenario by the Energy Transitions Commission shows solar power providing twice as much energy in 2050 compared to the IEA’s new scenario (27-35 terawatts vs 14.5 terawatts).

Recognizing the need for precaution on unpredictable technologies, the community, pollution and governance risks of large-scale CCS, and the availability of cleaner and, over the long run, more cost-effective alternatives, we urge the IEA to:

- **Make the “Low CCUS Case” referenced in the report, in which fossil-based CCS does not expand beyond current capacity, the base assumption of the scenario.** The IEA should instead emphasize the need to restore ecosystems as the best proven approach to capture carbon from the atmosphere. Relying on CCS to grow almost 4,000 percent to 2030, as the current scenario does, is dangerously optimistic given the technology’s poor track record and failure to take off to date. In the power sector, solar and wind are cleaner and cheaper than costly CCS retrofits. Furthermore, renewable-powered “green” hydrogen is available now and could outcompete fossil-based “blue” hydrogen as soon as the 2030s, making further investment in gas and CCS-based-hydrogen an investment in unnecessary pollution.
- **Accelerate the phase-out of fossil gas in both electricity and hydrogen production,** aligning the trajectory of primary energy supply from gas with, at minimum, a 3 percent annual decline in the 2020s. The 2020 Production Gap Report indicates this is the median trajectory for gas to be consistent with a 1.5-degree limit.
- **Do not rely on an increase in bioenergy.** Bioenergy production is linked to land grabs and human rights violations, food insecurity, increased greenhouse gas emissions, and loss of biodiversity. The IEA should emphasize energy efficiency solutions and increasing truly renewable energy use rather than projecting unsustainable bioenergy production.
- **Assume no growth in nuclear energy production.** Doubling of nuclear energy generation by 2050 is not plausible or cost effective. Several governments have already ruled out or placed extensive regulatory barriers on any new nuclear energy generation. Especially in light of the falling costs of renewable energy, it is not plausible that the rate of nuclear energy deployment will triple by 2030 as the IEA has projected. If current trends continue, it is much more likely that we will see substantial declines in nuclear energy production by 2030.

By improving the Net Zero by 2050 scenario in the ways outlined above and centering the scenario in the WEO, we believe the IEA can play a major and positive role in guiding energy decisions. As we watch climate impacts become ever more dire in our communities, the IEA’s leadership in setting a new course for energy investments is critical. With a strengthened and centered Net Zero by 2050 scenario in the WEO, the IEA would be poised to play a critical leadership role.

Sincerely,

Over 150 civil society organizations

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