Presentation Olof van der Gaag – How monetary policy tools can accelerate renewable energy & clean tech

- **Renewable technologies have relatively high initial investment costs (CAPEX)**, but low operating costs (OPEX), while fossil fuel projects typically have low capex and high opex. Significant capital is required for the investments, but once wind turbines, solar panels and cables are in place, the sun rises up for free. This makes renewable energy and the energy transition much more **vulnerable to the interest rate**, influenced by the European Central Bank its policy.
- A case-study from the Netherlands showed the impact of the interest rate on 8 technologies in 2023. The high interest rates of that time (a rise of ~3%) had a large impact on the businesscase and therefore the cost of the energy transition. The additional costs amount to **17 billion euros until 2030 (in NL) and 163 billion until 2050.** A further 1% increase would raise the costs by 6 billion euros until 2030.
- During this period of high interest rates, a survey among our members showed the effects of interest rates are quickly noticeable in the sector, a third already experienced negative effects of high interest rates on their financing options.
- Impacts of high interest rates include: Significant deterioration of the businesscase, more subsidy pressure, less attractiveness for investors

- **At the same time, fossil fuel prices were a large cause of high inflation.**
- The inflation in 2022 was for more than 50% caused by high fossil fuel prices.
- A larger share of renewable energy in the energy mix will likely result in more stable and lower energy prices, as well as less dependency on other countries and volatile fossil fuels. The relationship between the share of renewable energy and inflation is often found to be negative.
- According to the IEA**, the average energy price in 2023 would have been 15% higher** without the PV and wind installed after the war in Ukraine.
- Christine Lagarde said: **“**investment in renewables, grids and storage will lead to lower and more stable energy prices”
- Besides, climate change could also impact inflation and price stability through higher energy demand, lower production and less crop yields , so it would make sense for the ECB to incorporate climate change in its monetary framework.
- ECB says global warming could cause inflation of around 0,3-1,2 percentage points per year.
- **Mandates ECB**
    - The ECB uses the interest rate as a tool to promote price stability – their first and most important mandate. However, due to the large vulnerability of the energy transition to the interest rates, the ECB’s policy disproportionately affects renewable projects. Tightening

monetary policy will mean a slower energy transition, while fossil fuel projects are less affected.
    - The ECB's secondary mandate is to support the broader economic policies of and in the EU, which is geared towards decarbonisation.
- **Green TLTRO's**
- A green interest rate could be implemented to neutralise the negative impacts of monetary policy on the energy transition.
- This could be done through Targeted Longer-Term Refinancing Operations, where banks receive funding from the European Central Bank at reduced rates, conditional on the volume of green loans they issue. The EU Taxonomy provides a way to define 'green lending', and reliable data on green lending is now available (although the omnibus proposals make this less certain)
- As a larger share of renewable energy will likely result in more stable prices in the long-term, this could fit within the mandate of the central bank. Several other banks across the world have implemented similar instruments, like the Bank of Japan and the central bank of China.

- **Impact green interest rate: case study Netherlands**
- A green interest rate would save all sustainable energy projects capital costs. A case study on the impact on specifically electricity grid costs in the Netherlands shows a lower interest rate of 2 percentage points would save the society about **15 billion euros on grid costs**, up to 2040. Grid tariffs for consumers and SMEs would be about 10% lower than now projected and the impact after 2040 will even be larger.
- A green interest rate of 2 percentage points will save households around 85EUR per year on grid costs after 10 years, and SMEs with a typical connection about 1823 EUR in a 10 year period. For a baseload industry offtaker, a green interest rate could save almost 17 million in 10 years.
- The introduction of a European green interest rate would strengthen the **competitive position of the EU**, since there is less risk of leakage – where European industry would relocate to countries with cheaper grid costs. A European green interest rate would also decrease differences between European countries in grid fees, and improve the level playing field.