

Report Presentation Dr. Fatih Birol

Presentation of the World Energy Outlook 2022

Venue: Technische Universität Wien, Kuppelsaal

Date: 19th December 2022 10:00-11:40

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Pressekonferenz von 09:20-10:00 Uhr

➔ Anschließend Interview mit Puls 4

Official event

Moderation: **Hannelore Veit**

Opening statement: **Univ.-Prof. Reinhard Haas** (TUW, EEG)

Opening statement: **Vizekanzler Werner Kogler**

Introductory remarks by Prof. Haas

Personal remarks on his experience with Fatih Birol, receive his PhD 30 years ago at this very location

Addressed general topics of energy markets and renewable energy

Introductory remarks by Werner Kogler

Speech in German

Energieversorgung steht im Mittelpunkt der Politik

Energiemärkte, russische Invasion, fossil-getriebene Inflation

Bezugnahme Maßnahmen der BReg, Sondergewinne mit Zufallsgewinnsteuer adressiert

Weichenstellung für Mittelfristige Wende, jedoch steht kurzfristig Gas für den nächsten Winter im Fokus

Szenarien mitbedenken

An Gestaltbarkeit glauben, Klimaneutralität ist weiterhin erreichbar

Presentation Fatih Birol

Personal opening remarks

30 years ago, he received his PhD, had a student job at Naschmarkt to finance his studies, afterwards he received a scholarship from OeAD

We are in the middle of the first major energy crisis on a global scale

- ➔ Depth and complexity unprecedented, covers almost all energy sources, felt across the world
- ➔ Energy and geopolitics intertwined

Implications on

- ➔ Developing countries
- ➔ Russia
- ➔ Europe

Remarks on developing countries

High energy and food prices, major debt problem for many countries

Especially for Africa, after years of declining numbers of people without access to electricity, share of people without access to electricity is rising

Remarks on Russia

- *"Russia is losing the energy battle"*

As of February 24, 55% of oil and 75% of natural gas were exported to Europe, Europe by far the largest client of Russia

Russia lost Europe as client, maybe forever

- ➔ Logistical challenges
- ➔ Additionally, geologically difficult fields, oil- and gas field services firms left Russia, extraction, and field service issues
- ➔ Diminishing role of Russia in energy supply

- *"It will be extremely difficult, I not impossible to replace Europe as a client"*

Remarks on Europe

"Europe is paying for the cost of policies which were not the best"

- ➔ Relying too much on one unreliable country

Time for self-criticism on energy and foreign policy

Decades of reliance on Russian energy

- ➔ Mistakes cannot be compensated quickly, takes time for adaptation

European industry's competitiveness worries him the most

- ➔ Based on cheaper energy options
- ➔ Bumpy roads ahead of European industrial complex
- ➔ Masterplan in context of energy crisis necessary

Effects of energy crisis on the world

"Is this crisis going to slow or accelerate green energy transition?"

- ➔ Indication for acceleration
 - Structural responses
 - Plus immediate action
- ➔ 2022 unprecedented growth in renewables in Europe
- ➔ 2400 GW of renewables are added within the next 5 years, as much as in last 20 years
 - Europe, US, and China leading
- ➔ Key driving force for renewables is energy security

Remarks on electric vehicles

2019: 4% of sold vehicles were EV

2022: ~15% of sold vehicles were EV

2030: it is projected that the share of EV of sold cars reaches 50% in Europe, the US and China

Heat pumps experience a comparable big growth and energy efficiency numbers used to grow slowly, but are now accelerating

Remarks on the Industry/Industrial Policy

Subsidy program inflation reduction act worth 400bn USD in subsidies for batteries, EV, renewables etc. ➔ will be multiplied by private funding

- ➔ According to Fatih Birol: *"The biggest climate action since the Paris agreement"*
- ➔ Implications for other countries in industrial policies (and will certainly require a policy answer in affected countries)
- ➔ RePowerEU in Europe
- ➔ Japan green transformation

- ➔ In most countries, climate and industrial policies are driven by wanting a pole position in clean manufacturing, electrolyzers etc., and not by climate protection
- ➔ Countries want to be leaders of next chapter of clean industry and renewable energy
- ➔ Hopefully a healthy competition
- ➔ Clean energy cost will come down, which will lead to a higher penetration

Conclusions

Global energy sector will remember 2022 as a turning point for a clean and safer energy future (additionally to the devastating war in Ukraine)

Q&A Session

Sophie Hinterholzer (TUW)

Q: Long-term societal changes needed to reduce per capita energy consumption?

- ➔ Two types of measures for behavioural change
 - Standards and rules
 - Price signals
- ➔ Improvements in energy efficiency in transportation and building sector (thermal renovation important)

Ivo Wakounig (WEC)

Meaningful Youth engagement, 4bn people below age of 30

Q: How does the IEA engage with young people?

- ➔ Young colleagues at IEA HQ, ambassadors after leaving IEA

Q: Advice for young people to contribute to positive development in the energy sector?

- ➔ Choice of work after leaving university, follow your heart

Dr. Michael Strugl (Verbund, WEC)

Q: Number of people without access to electricity is increasing, more detailed explanation

- ➔ Mainly increase in sub-Saharan Africa, entire world economy is affected, most vulnerable are left out

Q: Hydrogen, evaluation of global hydrogen economy and Europe's role in this part of the energy economy

- ➔ Make investments in the right time, electrolyzers key in supply chain, Europe should be careful
- ➔ 90% of PV manufacturing in China, 25 years ago Europe was leader, China took over, could be the same for electrolyzers, race is a marathon, nobody remembers who finished the first 10km first → need for electrolyser manufacturing in Europe

Alexandre (French student)

Q: Why is economic degrowth not mentioned in WEO?

- ➔ Economic growth itself not bad, depends on what growth we have, more sustainable and durable, driven by clean energy and clean industry

- ➔ Economy should grow, decoupling of energy and economic growth in Europe, but not on a global basis, Africa, Asia, and Latin-America need to follow a green path

Peter Mitterbauer (MIBA, Vizepräsident IV)

Competitiveness of European industries, keep sustainable jobs in Europe, German, and Austrian export industry

Q: Do we have enough energy in Europe? (Expecting double demand in next decades)

- ➔ Government support, energy intensive industries major employers, have difficult time (competitiveness) → social and political implications of lost jobs in industry
- ➔ US, China, Japan etc are pushing strengths of their industries

Q: How shall a master plan for European industry should look like?

Deindustrialisation is silently happening right now

- ➔ Countries are changing position towards nuclear, renewed interest
- ➔ Lasting solutions will be based on renewables, hydrogen, and energy efficiency, reduce long-term reliance on natural gas

Representative Ärztekammer

Interaction MBS-Putin, Xi-MBS

- ➔ Reliance on oil and natural gas in short-term, reduce reliance on oil via EV etc.
- ➔ Surprising decision by major oil exporting countries
- ➔ Renewables more predictable than major oil exporting countries

Dr. Michael Losch (BMK)

Q: Importing hydrogen and partnerships with Europe, possibility of intercontinental partnerships

- ➔ Europe should be active, trade partners in Africa and middle east
- ➔ Pay attention to
 - Cost of hydrogen (long-haul transportation should be in line with oil economics)
 - Africa: needs energy for itself first, before exporting to Europe

Representative Verein Energiewende Linz

Q: Which industries are on the forefront of the energy transition and which industries have a substantial lack?

- ➔ In general Europe needs to take into consideration, that energy costs will be higher, energy intensive industry still in heart of European industrial policy, maybe shift industrial policy attention to lighter and clean energy technology manufacturing, h2steel

Armin Graf (TUW)

Q: How to value the role of US and potential re-election of Trump?

- ➔ If administration turns us position, inflation reduction act (most impactful action since 2015 Paris agreement) → law embedded in us system, policy focus might shift

Judith Bauer (DA)

Q: Why are you Highly optimistic, UN climate change measures insufficient

- ➔ Optimistic by nature, have all the data, no reason to be not optimistic, data shows green energy investment growth
- ➔ Investors bring money into renewables (more investable than fossil fuels, better return)

Q: European countries consider nuclear power, more research and investment needed?

- ➔ Careful regarding big breakthrough

Andreas Hofer (Consulting Engineer)

Q: Why were prices rising even before the war? (August 2021, price increases began)

- ➔ Before invasion increasing prices, big jump after February 24, Russia reduced gas exports by 1/3 starting in 2021, reducing exports without any reason, prices go up before invasion

Jennifer (TUW)

India focus, one of largest energy consumers, increasing imports of Russian energy

- ➔ Huge achievements of India, huge government push to bring electricity to villages Indian programme on medical problems, open-fire cooking (major health problem, respiratory diseases, premature deaths) → people received clean cooking stoves