

R10 Resolution on nuclear

Proposer: Vihreät Nuoret
Agenda item: 6. Resolutions

Motion text

Resolution on nuclear

30.7% of total EU's CO2 emissions is made by energy supply (Statista, 2024). A clear, realistic and ambitious energy policy is needed to achieve the goal of decarbonizing the whole industry. Our current policy lacks the realism part when considering nuclear power – which no matter the downsides plays a major role of carbon neutral electricity production in our member countries.

1 – Reality with nuclear phase-out and fossil fuel usage

The current text considering nuclear power does not coincide with the realities in EU countries with nuclear electricity production. Even with massive investments into renewable energy sources, massive amounts of fossil fuel production is needed (Bdew, 2024). The lost nuclear electricity production was largely replaced by coal (Jarvis et al., 2022).

The main issue is that while nuclear energy provides stable electricity production, most renewable sources are weather dependent by nature (Brunner et al., 2020). Additional flexible energy demand is filled with fossil fuels because we don't yet have the technologies for additional carbon neutral flexible energy production (Zöphel et al., 2018). The issue is not just political or economic, hence needing viable policies. Positioning ourselves to advocate for phase-out of all nuclear energy – no matter how modern and safe those powerplants are – will ultimately lead to dependency on fossil fuels, whether we want it or not. The stance on nuclear power being dirty and dangerous is outdated and lacks the proper understanding of scales considering the global climate catastrophe.

2 – Emerging nuclear technology

26 The current text doesn't mention emerging nuclear technologies, which are
27 generally known as Small Modular Reactor Technology Developments. These
28 technologies are fission reactors aiming for modular development, improvements
29 in nuclear safety with passive safety elements (f. ex. lower pressure ranges and
30 natural conduction circling) as well as other nuclear fuel such as thorium
31 (IAEA, 2020). The possible usages of these new reactors tackle the issues of
32 decarbonizing district heating and industrial steam processes, hence widening
33 the potential usages of nuclear energy from electricity production to sectors
34 which are harder to decarbonize with renewables. However, the current text notes
35 that nuclear fusion "will be unable to provide a concrete response in time to
36 solve the climate crisis". While the point is true, fusion technologies are just
37 part of all nuclear technologies developed at the moment. Fusion is not relevant
38 to address in the platform, but Small Modular Reactor Technologies should be
39 addressed.

40 3 – Nuclear safety

41 Historically the global Green movement has opposed nuclear power. Major nuclear
42 disasters (Three Miles Island and Chernobyl) as well as thousands of nuclear
43 tests and handling of nuclear waste were large issues in the latter part of the
44 20th century. However, the lessons learned from the disasters, accidents and
45 problems regarding nuclear waste has made nuclear energy one of the most
46 reliable production methods in the world (Statista, 2022). While large
47 environmental catastrophes and loss of life as a result of a nuclear accident is
48 technically possible, so is one from a structural failure of a dam. Nuclear
49 power is in the same level of deaths per unit of electricity production as wind
50 and solar power and unsurprisingly coal and oil are at the top (OWID, 2018).

51 No electricity production method is perfect. Modern powerplants regulated by
52 national nuclear safety authorities in Europe are safe and regulated. We should
53 focus our safety concerns on the ends of the uranium lifecycle. The mining of
54 uranium doesn't create considerable radiation risks, but it has the risks
55 involved with all mining. Hence, we ought to have more regulation on the mining
56 practices in EU and to regulate the import of uranium from countries with poor
57 mining safety practices or human rights violations. The recycling and deposition
58 of used nuclear fuel is another problem with both radiation risks and questions
59 about the morality of long-term deposition of the fuel. The conversation around
60 these topics and the wider nuclear safety is an important one, but it shouldn't
61 be influenced by scare tactics or historical sentiments.

62 Sources:

63 BdeW. (2024) Die Energieversorgung 2023 - Jahresbericht

64 Brunner, C. Deac, G. Braun, S. Zöphel, C. (2020) The future need for flexibility

65 and the impact of fluctuating renewable power generation. Renewable Energy. Vol.
66 149.

67 ENTSO-E Transparency Platform. (2024) Actual Generation per Production Type.
68 (Updates continuously)

69 IAEA. (2020) Advances in Small Modular Reactor Technology Developments Statista.
70 (2022) Mortality rate from accidents and air pollution per unit of electricity
71 worldwide, by energy source

72 Statista. (2024) Distribution of carbon dioxide emission in the European Union
73 in 2022

74 Stephen, J. Deschenes, O. Jha, A. (2022) The Private and External Costs of
75 Germany's Nuclear Phase-out. Journal of the European Economic Association.
76 Zöphel, C. Schreiber, S. Muller, T. Möst, D. (2018) Which Flexibility Options
77 Facilitate the Integration of Intermittent Renewable Energy Sources in
78 Electricity Systems. Current Sustainable/Renewable Energy Reports. Vol. 5.

79 Our World in data. (2024). Website, read 18.7.2024.

80 <https://ourworldindata.org/grapher/death-rates-from-energy-production-per-twh>

81 **Proposal for the new text**

82 **The following text is based on the new EC amendment proposal. Our additions are**
83 **bolded.**

84 **Nuclear energy (see Glossary 111) cannot be built in time to use it as a climate**
85 **crisis solution. Nuclear energy, just like any energy source, has drawbacks,**
86 **including but not limited to the exploitation of workers in the extraction of**
87 **uranium (see Glossary 181), the long-term disposal of nuclear waste, huge**
88 **consequences of potential accidents, the long time it takes to build and the**
89 **increasingly expensive costs to build nuclear power plants.**

90 **Currently operating powerplants should continue to operate and produce**
91 **electricity as long as national nuclear safety authorities deem the powerplants**
92 **safe and reliable. The modernization efforts and continuous safety improvements**
93 **overseen by the nuclear safety authorities are crucial for the usage of nuclear**
94 **energy. The learnings from Three Mile Island, Chernobyl and Fukushima nuclear**
95 **disasters must influence the improvements of nuclear safety systems and accident**
96 **mitigation plans. While serious nuclear accidents are few and far between, the**
97 **number of lives the production of fossil fuels and electricity claims yearly are**
98 **in the millions.**

99 All nuclear safety deviations must be reported to the general public even if
100 they don't meet the criteria for International Nuclear Event Scale (INES)
101 anomalies or incidents. National laws considering all usages of radiation have
102 to demand nuclear powerplant operators, enrichment operators, nuclear waste
103 operators and nuclear fuel transportation operators to be fully transparent
104 about the safety deviations.

105 FYEG prioritizes renewable energy sources over nuclear and fossil fuels. FYEG
106 demands that renewable energy development must not endanger biodiversity and
107 must reduce reliance on rare earth minerals that often are mined in exploitative
108 practices. Possible phaseout of nuclear powerplants must be reliant on renewable
109 energy and must not increase the reliance on fossil fuels even in the short run.

110 Small modular nuclear reactor technology may be developed and used for district
111 heating purposes as well as electricity production in remote areas. Community-
112 owned small reactors are a viable option to decarbonize district heating where
113 renewables are not scalable to fit the demand due to Arctic conditions or lack
114 of electricity infrastructure. Eventually we want to stop using the small
115 modular nuclear reactors as well, when the renewable production methods are
116 reliable enough to carry the whole electricity infrastructure.

117 The development of renewable energy limits the dependence on fossil fuels and
118 uranium from Russia and other authoritarian states. The end goal of FYEG energy
119 policy is a decentralized and community-owned and operated renewable energy
120 system.

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Reason

We made this resolution to reflect the conversation of the last GA and bring forward our side on this topic.