LOW-CARBON STRATEGIES FORECASTS WITHIN THE FRAMEWORK OF DIFFERENT GEOECONOMIC SCENARIOS OF UKRAINE

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GEOPOLITICAL SCOPE: roadmap for Ukraine to access the EU ➞ ESU2035 (2017)

Indicators	2015	2020	2025	2030	2035
Primary Energy Intensity, toe/thousand USD GDP PPP	0.29	0.20	0.18	0.15	0.13

Table 1. Forecasted values for the intensity of emissions of the economy according to ESU2035.
Source: Long-term Energy Modelling and Forecasting in Ukraine: Scenarios for the Action Plan of Energy Strategy of Ukraine until 2035, Technical University of Denmark, 2019.

GEOPOLITICAL DISRUPTION: 2022 invasion from the Russian Federation

KAYA IDENTITY

$$CO2 = Population \ x \ \frac{GDP}{Population} \ x \ \frac{Energy}{GDP} \ x \ \frac{CO_2}{Energy}$$

Year	Population *(millions)*	GDP/capita *(USD/ capita)*	Primary Energy Intensity *(toe/ '000 USD)*	Economy Carbon Intensity *(g/KWh)*	Total Emissions Per Year *(MMTCDE)*
2021	*44*	*4,569*	*17*	*194*	*180*
END OF CONFLICT	*POST-WAR FORECASTED SCENARIOS FOR 2050*				
2024	*32*	*13,000*	*0.10*	*50*	*24*
2027	*31*	*13,200*	*0.10*	*50*	*27*

Additional cost of carbon/additional year of war ≈ 1 MMTCDE/yr