



Business planning of Renewable Energy and Energy Efficiency
Projects in Ukraine and Eastern Europe

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Climate change policies in an international context



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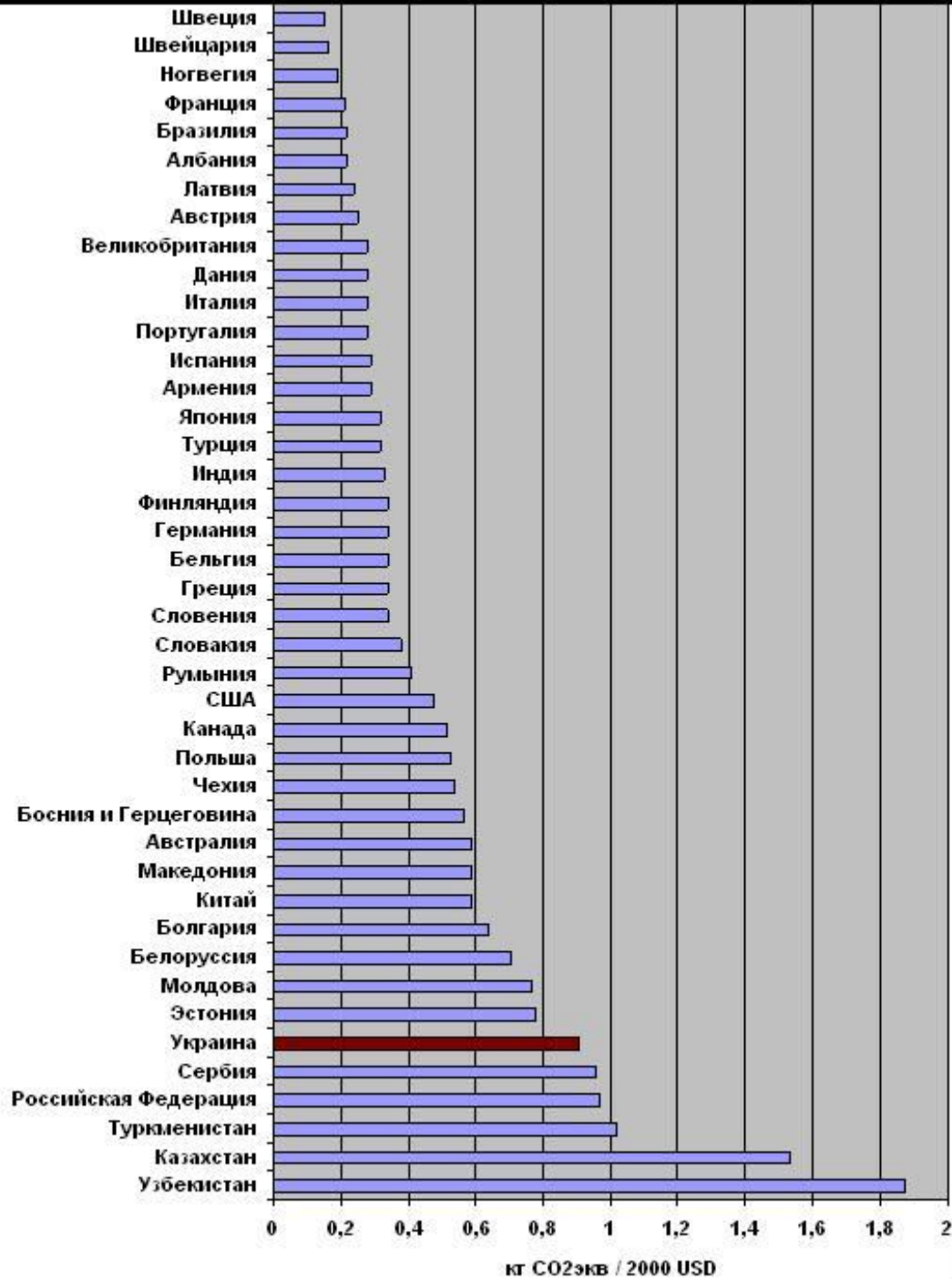
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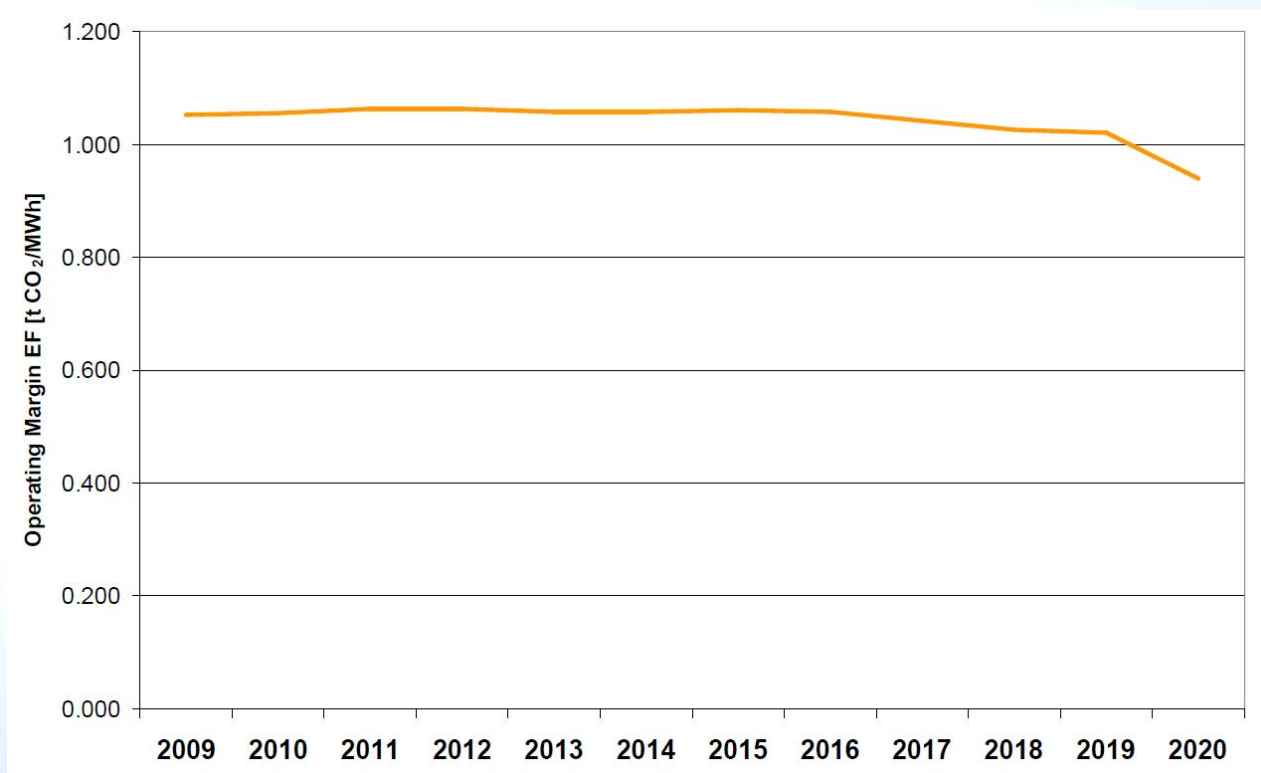
IEA World Energy
Statistics 2010

**Ukraine:
Huge potential
for improvement
compared to
other countries**





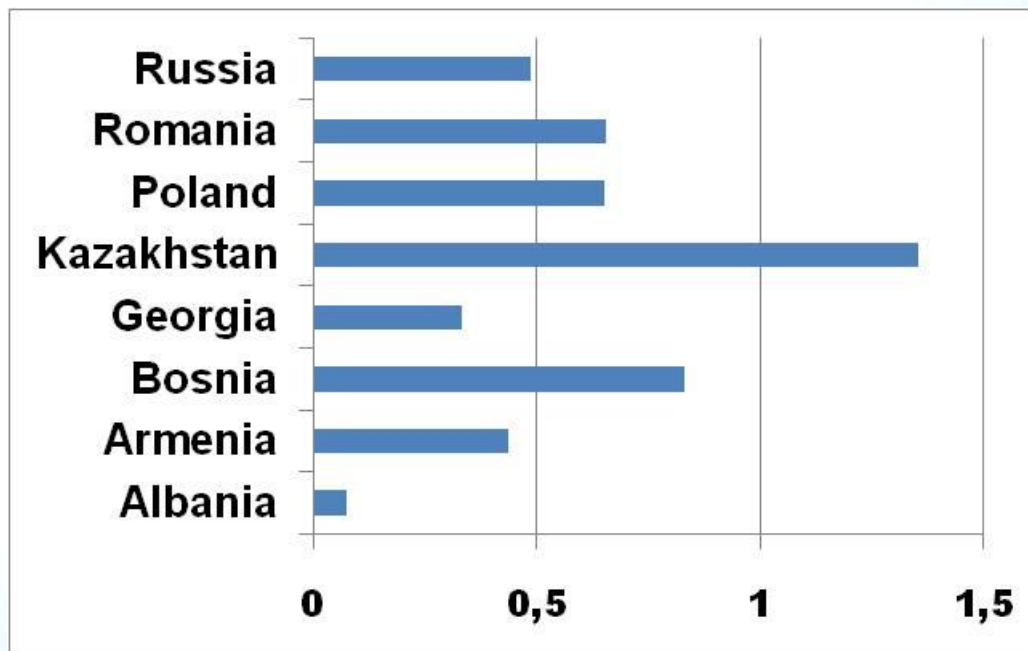
CO₂ grid emission factors for Ukraine



Source: Lahmeyer International for EBRD: “Development of the electricity carbon emission factors for Ukraine”, October 2010

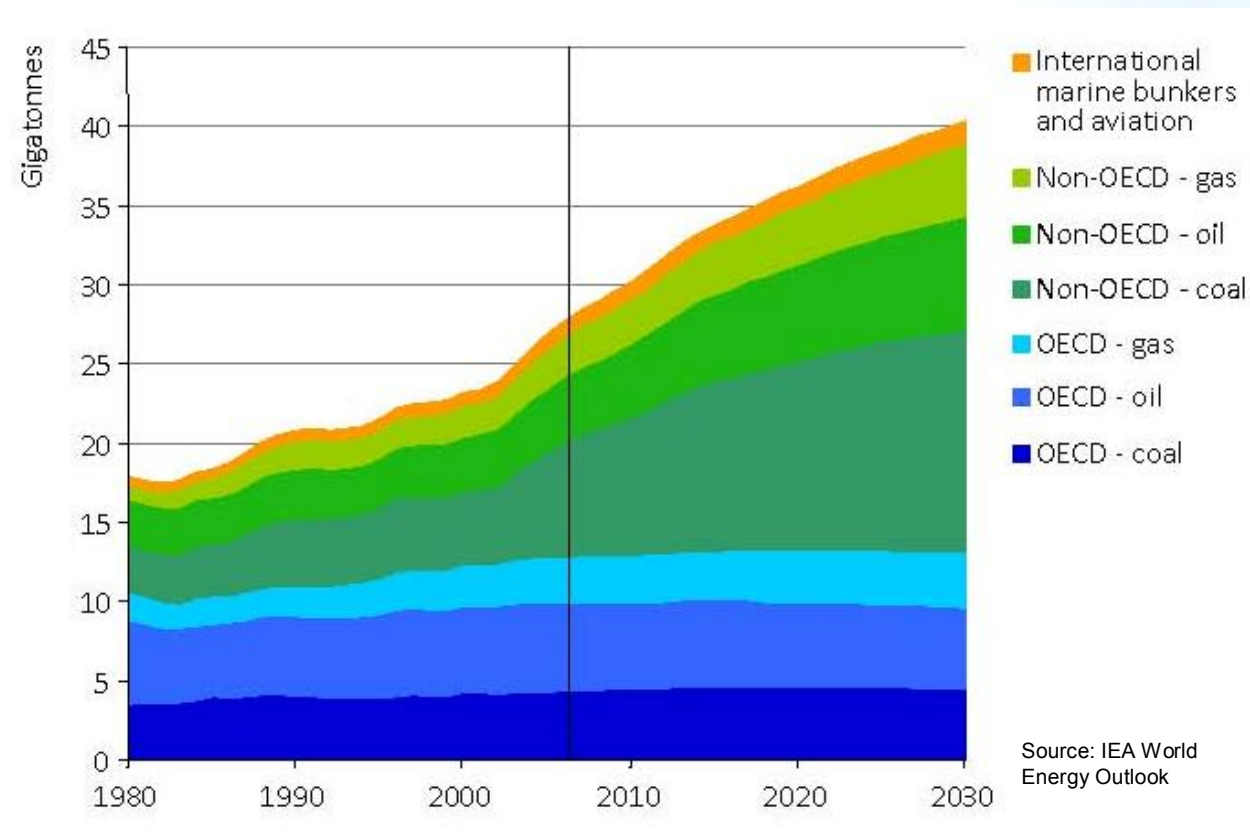


CO₂ grid emission factors for other countries



Source: EBRD "Electricity Emission Factors Review 2009"

"Business as usual" scenario for the worlds energy related CO₂ emissions





”Business as usual” is not acceptable !

IEA presents two alternative scenarios:

1.The ”450 scenario” (stabilisation of CO₂ concentration in the atmosphere at 450 ppm, which will result in 2 °C increase of the global temperature.

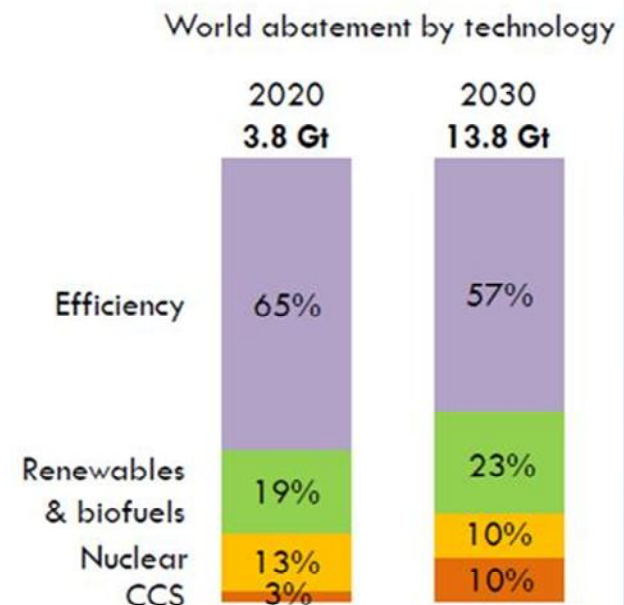
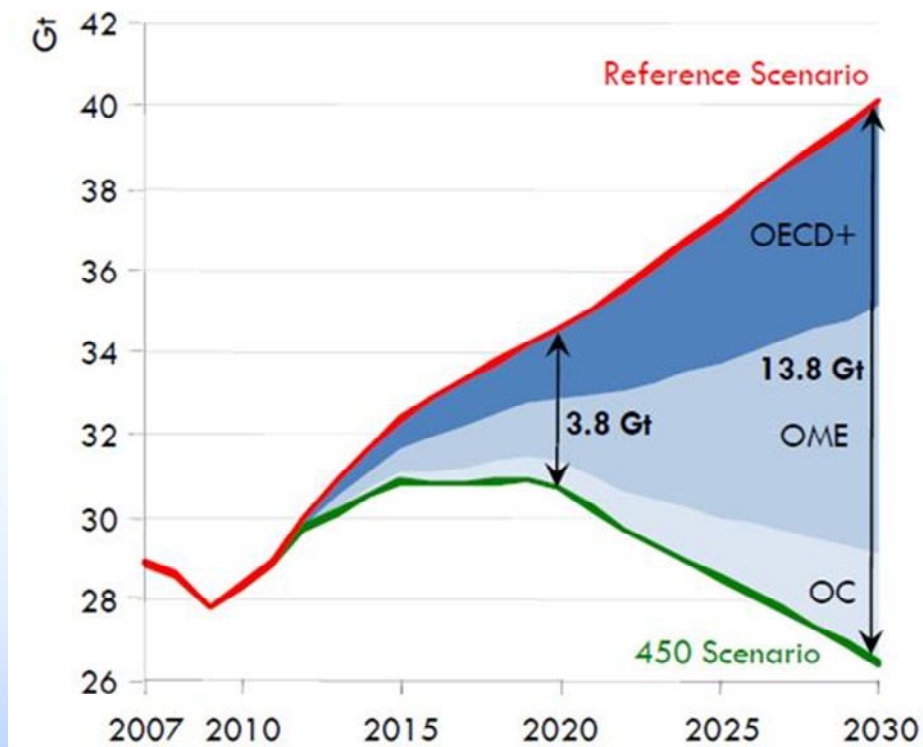
2.The ”550 scenario” (stabilisation of CO₂ concentration in the atmosphere at 550 ppm, which will result in 3 °C increase of the global temperature.



Some conclusions in the IEA's "World Energy Outlook":

- 1. We are now on course for a 6°C temperature rise & rising energy costs**
- 2. Limiting temperature rise to 2°C will require big emission reductions in all regions**
- 3. A 450 path towards 'Green Growth' would bring substantial benefits**
 - **Avoiding the worst effects & costs of climate change**
 - **Energy-security benefits, lower oil & gas imports & reduced energy bills**
 - **Much less air pollution & huge health benefits**
- 4. Improved energy efficiency & technology deployment are critical**
- 5. Each year of delay adds \$500 bn to mitigation costs between today & 2030**

How to change "Business as usual" scenario for the worlds energy related CO₂ emissions ?



Source: IEA World Energy Outlook



Norwegian Climate Change Policy

- Norway will over-fulfil its commitment under the Kyoto Protocol by 10 per cent, corresponding to 5 million tons of CO₂-equivalents annually in the period 2008-2012
- By 2020 Norway will cut its emissions by 30 per cent
- Norway is ready to become carbon neutral by 2030 as part of an ambitious agreement, where other industrial nations make substantial commitments



Norwegian support to energy efficiency and renewable energy in Ukraine

As a part of the Norwegian Climate Change policy, the Norwegian government buy CERs and ERUs and supports capacity building programmes for reduction of CO2 emissions in other countries.

Norsk Energi is implementing a long term capacity building programme for development of energy efficiency and renewable energy projects in Ukraine.

Some of the projects developed under this programme will be presented here today.