

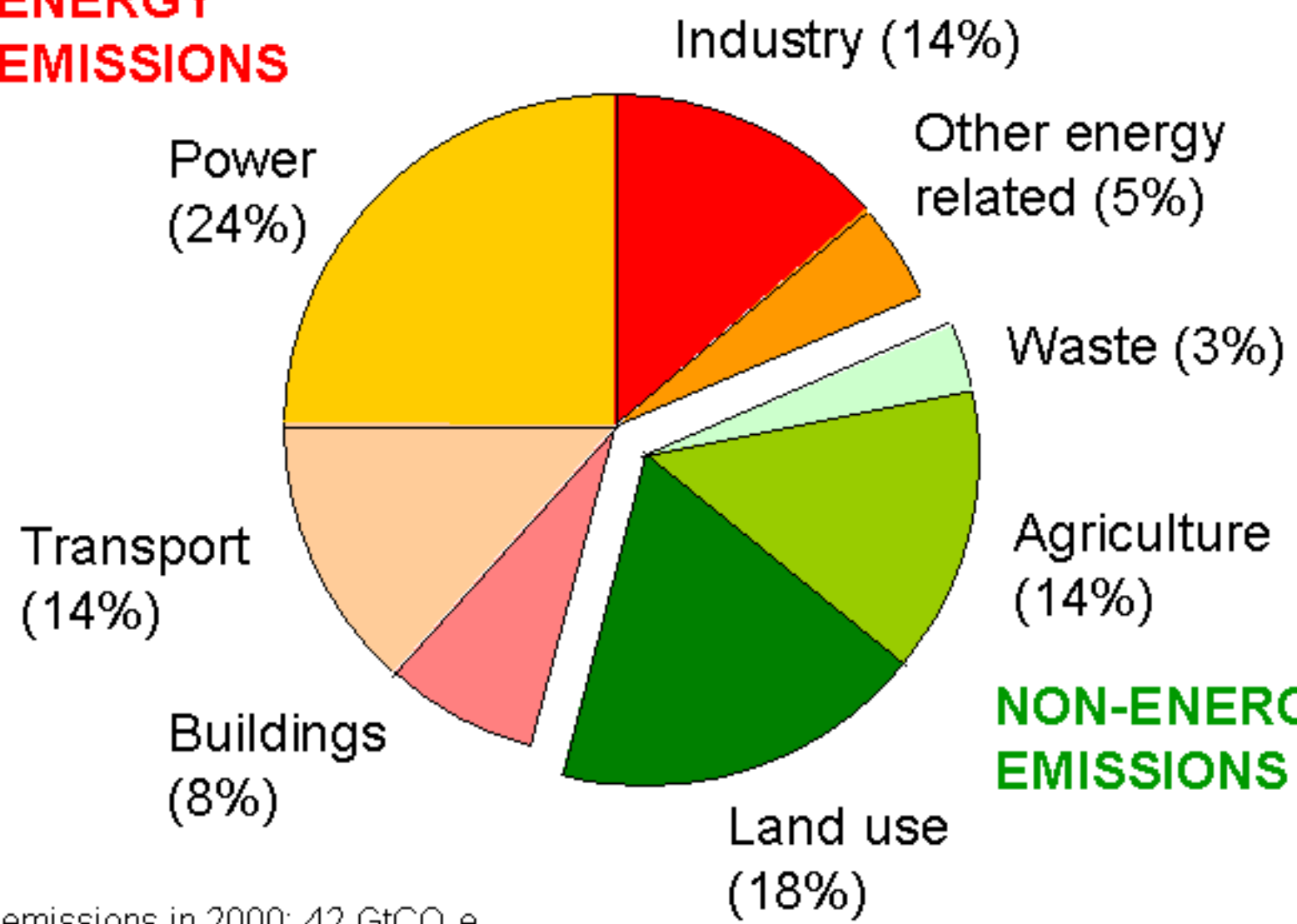


DET KONGELIGE
UTENRIKSDEPARTEMENT

*Ren energi for utvikling –
hvor står vi – utfordringer framover
NVEs Energidager 15. okt. 2009*

*Morten Svelle
Utenriksdepartementet*

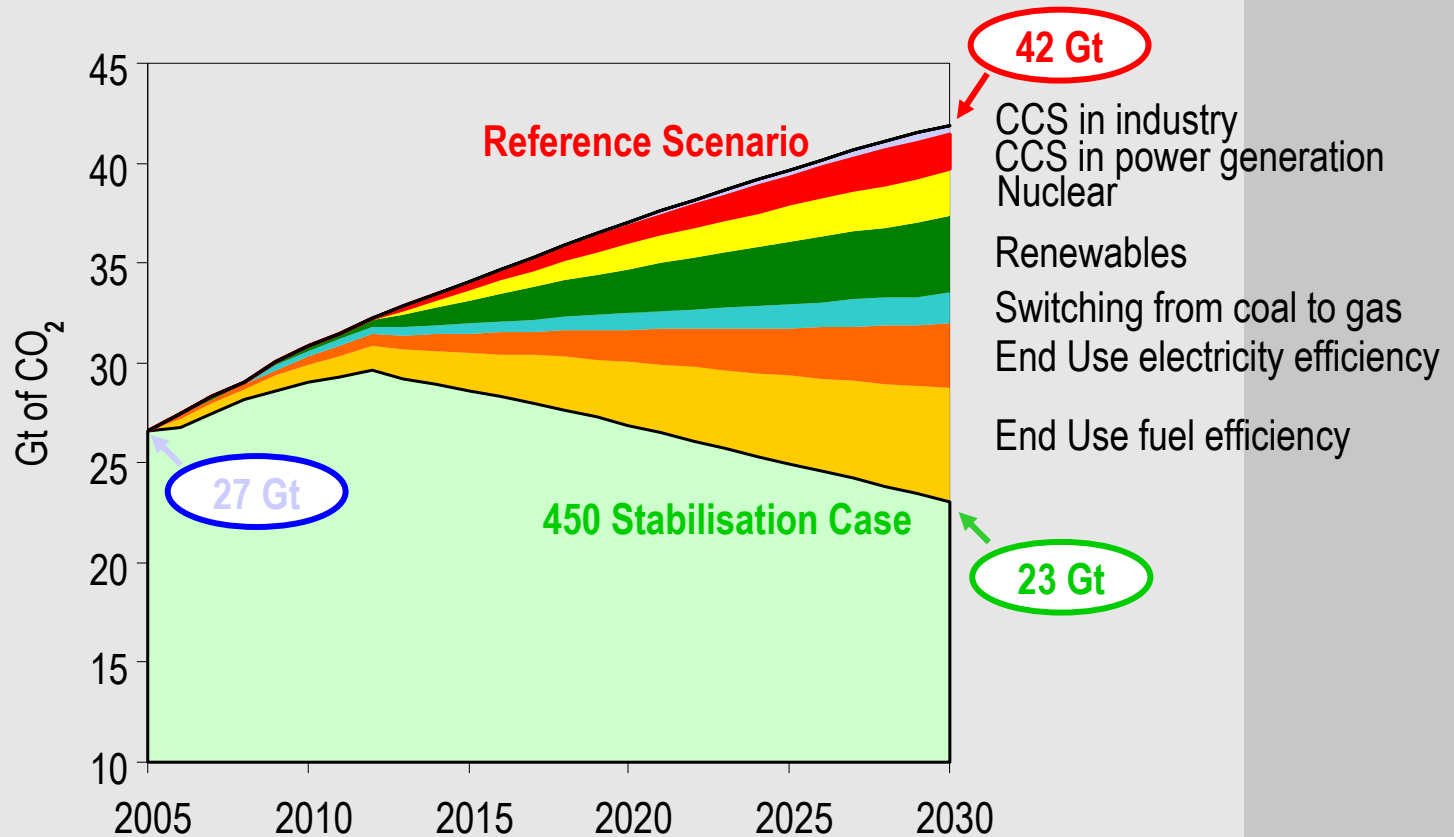
ENERGY EMISSIONS



NON-ENERGY EMISSIONS

Total emissions in 2000: 42 GtCO₂e.

CO₂ Emissions - 450 Stabilisation Case

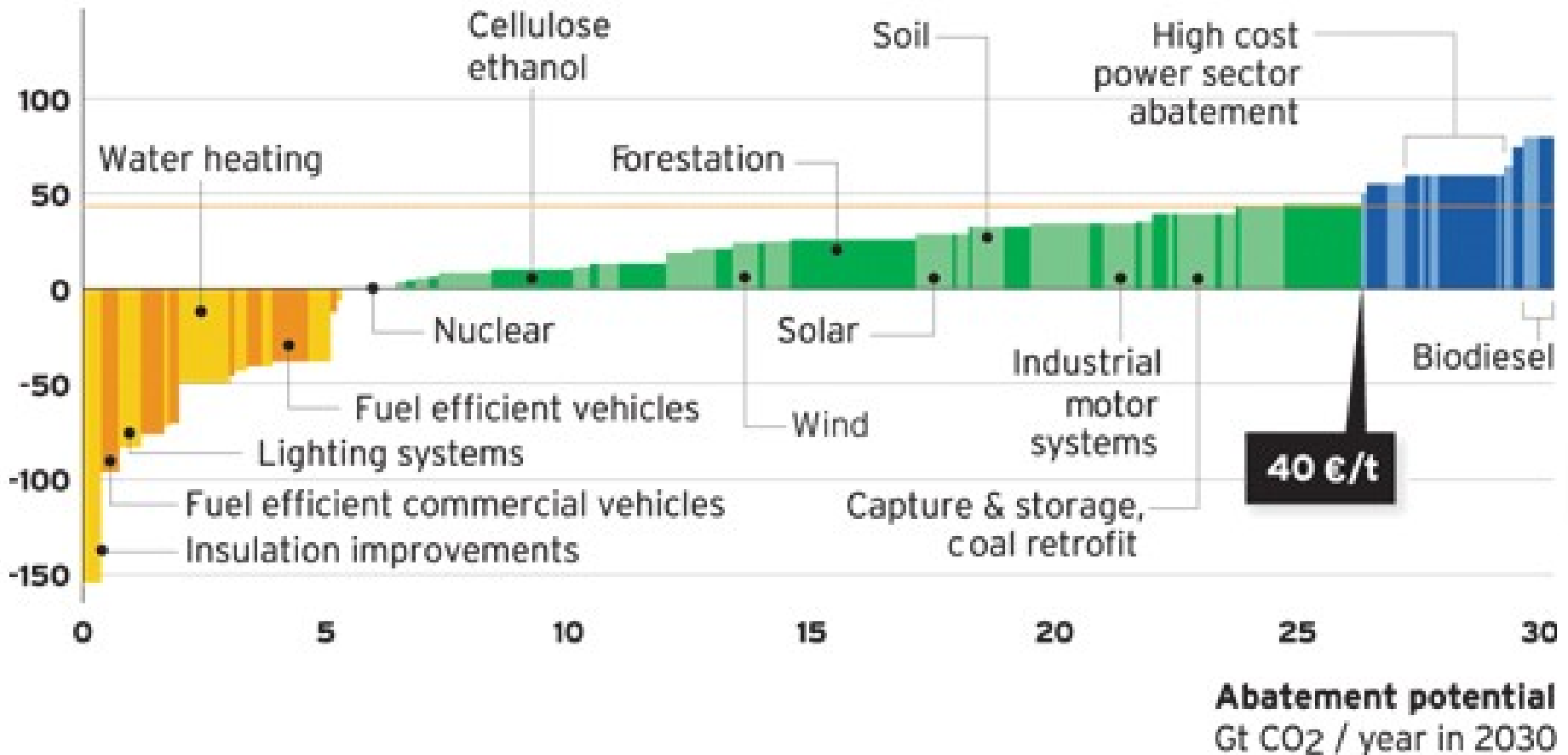



By 2030, emissions are reduced to some 23 Gt, a reduction of 19 Gt compared with the Reference Scenario

Global cost curve

Marginal cost of abatement - examples

€/t CO₂



 Negative abatement marginal cost

 Abatement marginal cost below €40/t

 Abatement marginal cost above €40/t

Energy, Climate, Poverty and Development

- More than half of the emissions of climate gases from energy
- Clean energy a substitute to coal, oil and nuclear
- Preparedness and capacity for adaptation to climate change
- 1.6 billion people lack access to electricity
- 2,4 billion people use traditional bio fuel for cooking
- Access to energy vital for the MDGs
- Lack of energy infrastructure is one of the main hindrances for investments and economic development in developing countries

The Clean Energy for Development Initiative

Objectives:

- Climate change mitigation by using clean energy resources
- Access to energy provided by utilization of clean energy
- Preparedness and capacity for adaptation to climate change

Clean Energy for Development

- Renewable energy (hydro, solar, wind, energy efficiency)
Norway competitive
- Comprehensive experience on hydropower and energy sector management
- Cooperation with Norwegian institutions and companies
- Capacity building and institutional strengthening
- Increased private investments to the sector – strengthened support to Public Private Partnership
- Support to rural energy and energy efficiency

Clean Energy for Development - cont'

- Energy as a tool for regional integration – contribution to peace and reconciliation – and to economic and political integration
- Focus on environment, indigenous people, occupational health and safety
- Emphasis on good governance and anticorruption
- Social responsibility and local development

Energy in the Development Budget

- Increased cooperation on renewable energy
- Increased support to investments in renewable energy and electrification
- Increased technical cooperation – capacity building
- Increased support to multilateral cooperation on energy.
- 2008: + 400 mill. NOK for climate change, including clean energy
- 2009: + 200 mill. NOK for clean energy
- Increased effort on Public Private Partnership – need for innovative financing
- New instruments in Norads PSD tool box
- Building up Norfunds capital base

Bilateral Engagements - examples

- Tanzania: Electrification on Zanzibar, Pemba electricity cable, transmission, generation, rural
- Mozambique: Transmission, interconnections, capacity building, rural electrification
- Uganda: Bugoye HPP, capacity building, transmission, rural
- Ethiopia: Feasibility studies, Blue Nile, NBI,
- Liberia: Electrification Monrovia, new power station
- South Africa: Action plan on renewable energy, CDM strategy
- Nepal: Upper Tamakoshi, Feasibility Study, ESAP, power trade
- Timor Leste: Capacity building, Gariuai HP, public lighting
- Vietnam: Master plan, Licensing system, Regulatory capacity
- Bhutan: Master plan, capacity building

Regional Cooperation

- SADC: Donor coordination, interconnections, CDM, PROBEC, SAPP, RERA
- NBI: Power trade, capacity building, Comprehensive Basin-Wide Review
- South Asia: HP development, Capacity building, Power trade (India, Nepal, Bhutan). Water management?
- Mekong River Commission (Hydropower development, licensing, environment...)
- Central America

Multilateral cooperation

- WBG: CIF, SREP, NTF-PSI, ESMAP. Interconnection TF Mosambik. SADC/Maputo.
- ADB: Clean Energy Financing Partnership Facility (CEFPF)
- AfDB : NEPAD-IPPF - NEPAD Infrastructure Project Preparation Facility Special Fund, Funding preparatory studies for regional infrastructure projects in Africa
- UNDP: Environment and Energy Programme
- REEEP, GEEREF

Hindrances for Energy Investments in LDCs

- Low profit related to the risk factors
- Regulated power prices
- Investment climate with uncertainties

Commercial Investments - Role for ODA

- Political dialogue and capacity building related to power prices
- TA for:
 - Improved framework for private sector engagement: Improvement of the energy sector, modern legislation, solid sector institutions, banking sector,
 - Project related support to private partners for planning, studies, training, environment, social programmes etc.
- Grants for supporting public infrastructure (transmission, roads)
- Guarantee instruments
- Finance required—funding the public side of the PPP relationship

Energy, Climate and Financing

- Carbon financing important for the mobilisation of private sector on clean energy investments
- Very few projects in LDC (3% Africa)
- Support to capacity building
- Support to project development
- Climate financing post 2012 – need to develop innovative climate financing

Norwegian Competence

- Higher education and research
- Energy administration (MPE, NVE)
- Energy Regulator (NVE)
- Transmission, (Statnett)
- Power trade (Nordpool, Statnett)

Norwegian Industry and Investors

- SNPower (Statkraft-Norfund)
 - Build on Norwegian skills and experiences
 - Nepal, Peru, Chile, India, Sri Lanka, Philippines,
 - SNPower AfriCA (Africa and Central America)
- Statkraft, Laos, Balkan
- Regional Power Companies (Bugoye w. TrønderEnergi)
- ScatecSolar
- Financial investors
- Norfund, state owned investment fund for developing countries
- Consultants (Norconsult, SWECO, Norplan, ECON)
 - Master studies, IWRM Plans, Feasibility studies, Design studies, Management, Power trade
- RainPower (Kværner/GE) – turbines
- ABB – electrical equipment
- INTPOW

Achievements

- Much more activity
- Clean energy on the Agenda in 20+ countries, 5 regions and multilateral
- Norway a key strategic partner in Tanzania, Uganda, Mozambique, Nepal
- Increased interest from the energy industry and investors
- Increase in budget 2006 to 2009
- The first privately financed HP opened (Bugoye)
- The Pemba Cable to be opened in 2010
- EBL Project: "Energy for Development"
- INTPOW
- SNPower AfriCA
- SPU, Green Investments & Emerging Markets 20 bn. NOK

Challenges

- Sustained political commitment
- Budgetary frames to follow up commitments
- Number of partner countries – concentration or spread out
- Financing PPP; project with private sector participation (Bugoye “model”, fixed or flexible support, guarantees...)
- Sustainability of the projects (environment, social responsibility, HMS, gender, climate change, local development, electrification) - Project with EBL, NGOs, Public sector
- “REDD project” on clean energy – financing and technology transfer?