STATE ATOMIC ENERGY CORPORATION "ROSATOM"

Nuclear and renewable energy – a foundation for low-carbon generation

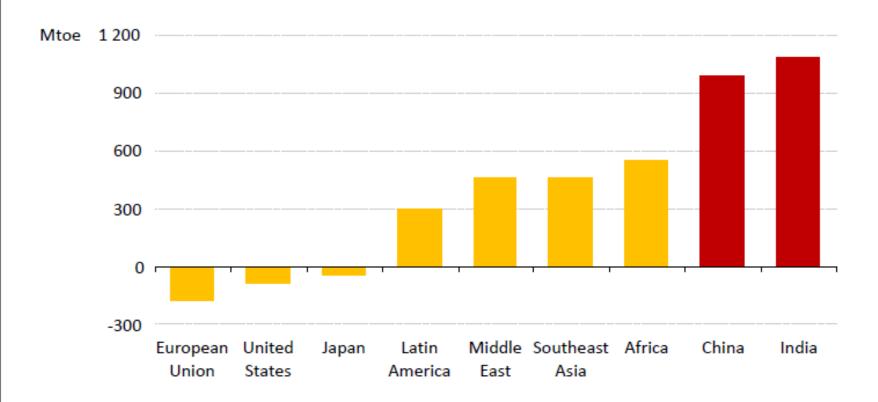
Kirill Komarov

Moscow

May 2016

Global trend 1: Growth in energy demand will be centered in the fastest growing economies

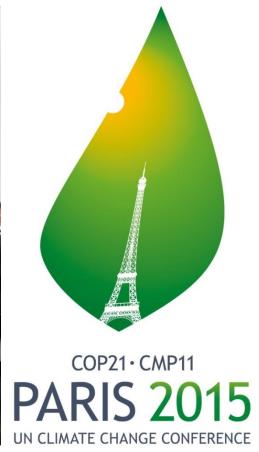
Change in energy demand in selected regions, 2014-2040



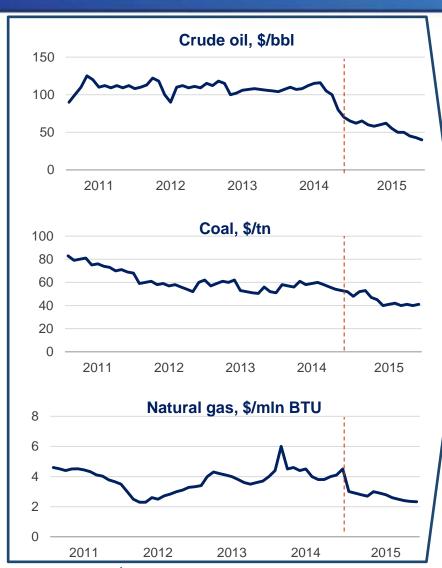
Source: IEA

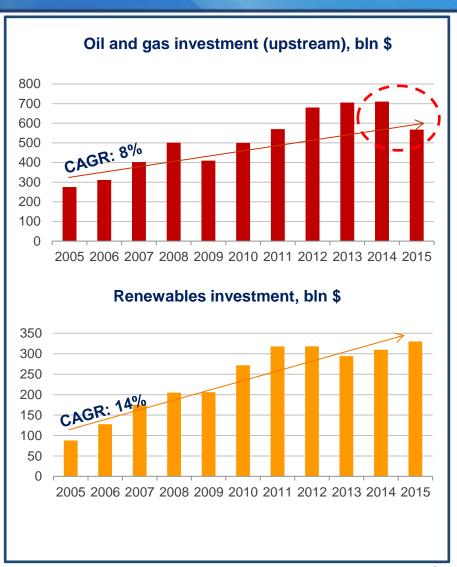
UN Climate Change Conference Paris 2015 set the approach to tackle growth in energy consumption





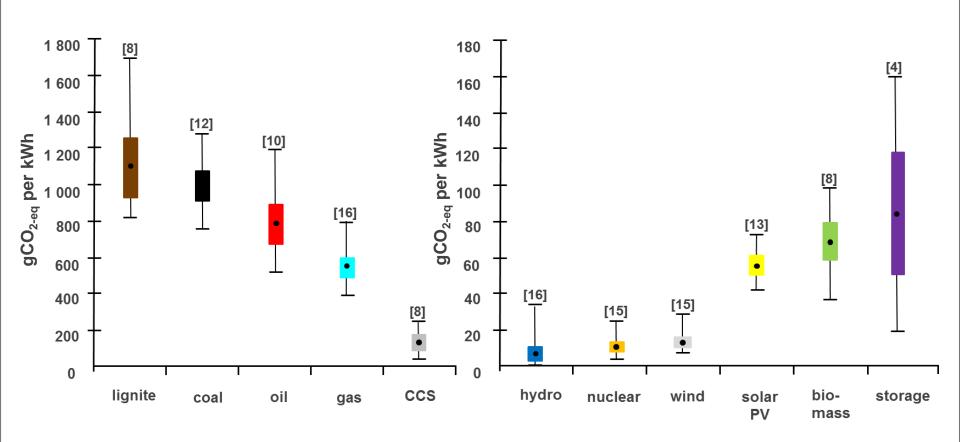
Falling fossil fuel prices did nothing to halt growth of investments in renewables





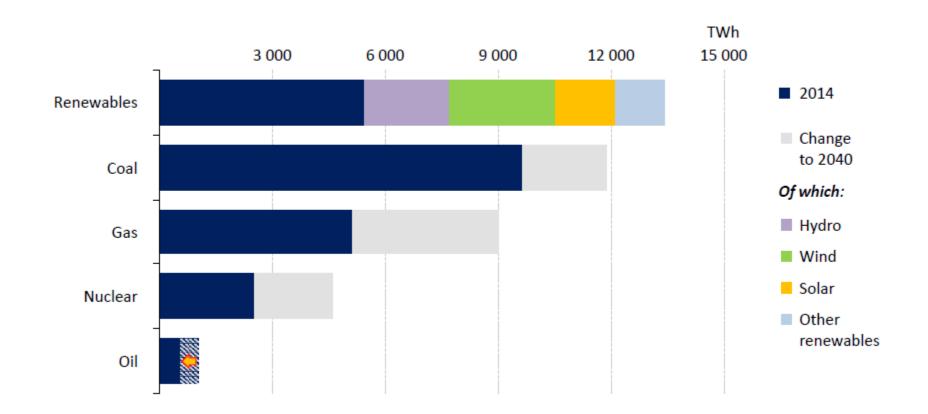
Nuclear power: Very low lifetime GHG emissions make the technology a potent climate change mitigation option

Life cycle GHG emissions of different electricity generating options



Source: IEA

Growth in energy demand will be met by renewables



Source: IEA

Our first step – entering Russian wind energy market



Wind turbine manufacturing

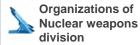
Wind farms designing

Construction works

Operation and maintenance

Generation and trading







Khimpromengineering



in association with technological partner

Russian and foreign design institute

Russian and foreign construction works companies



in association with technological partner



Utilization of existing industrial capacity

Guarantee of meeting local content requirements

Growing manufacturing competence www.rosatom.ru

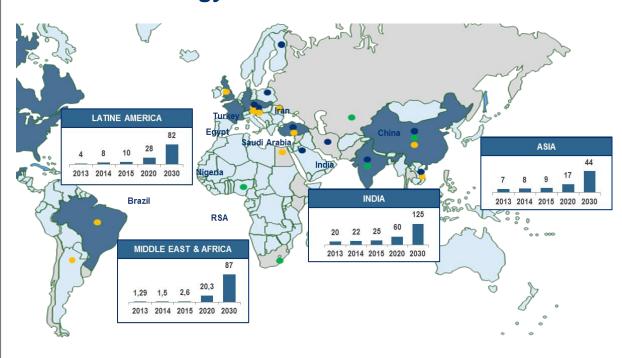
Using existing competences

Maximization of value added in energy sales

Preservation of value added in operation and maintenance

Next step – providing low-carbon energy solutions to satisfy growing demand worldwide

Priority markets – existing NPP contracts and fastest growing renewable energy markets



- A low-carbon product construction and operation of wind farms, PV, NPP
- The reputation and competence of ROSATOM in nuclear energy, together with growing competence in wind energy will allow international expansion
- Market entry model: EPC, generation company

Source: FTI Consulting, AT Kearney, EWEA, BENF, Global Wind Energy Outlook

- Biggest markets of wind power
 Emerging markets of wind power
- IGA and NPP turnkey contracts
- Participate in NPP tender
- NPP tenders before 2030