



IAEA

60 Years

Atoms for Peace and Development

How Can Nuclear Power Contribute to Climate Change Mitigation?

Side Event, IETA Business Hub, COP23

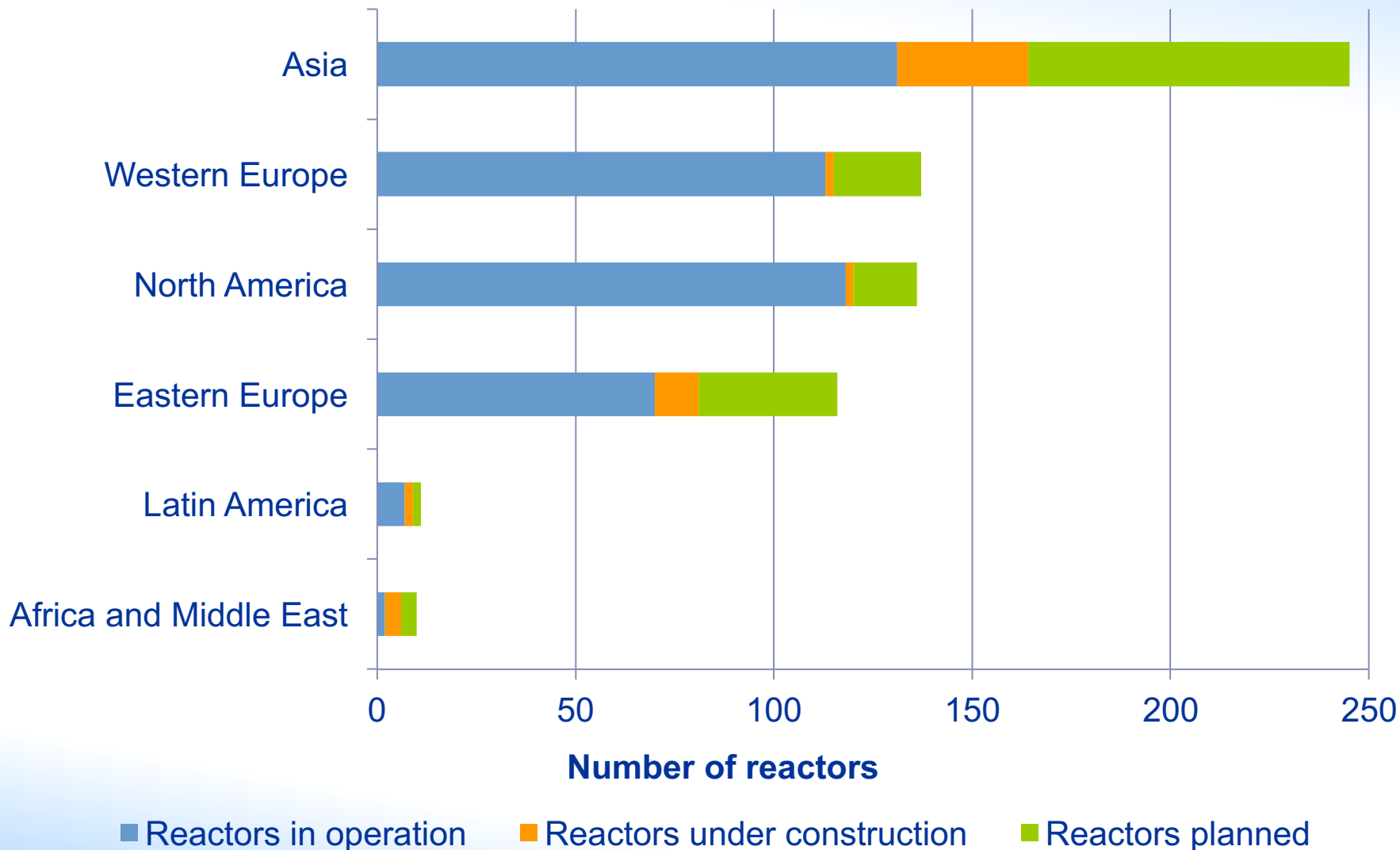
15 November 2017

L. Stankeviciute, International Atomic Energy Agency

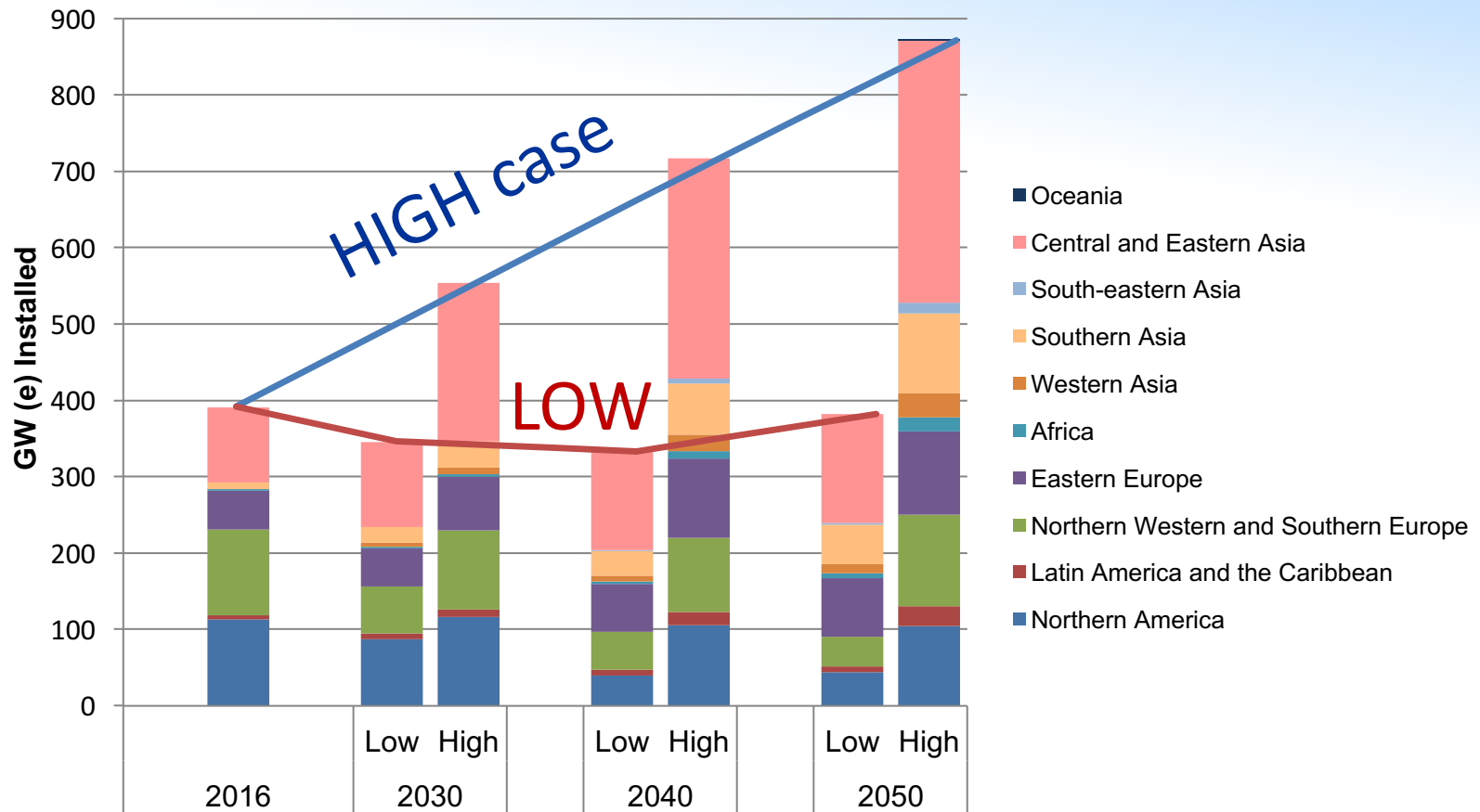
Benefits of Nuclear Power Plants

- ...diversifies supply
- ...emits virtually no GHG and no air pollutants
- ...contributes to energy security (plentiful and geographically diversified uranium resource)
- ...offers predictable generation costs (low share of fuel cost in overall cost structure)
- ...offers stable and reliable base-load electricity
- ...has socio-economic benefits (high level skills and knowledge, industrial development, increased human capital...)

Existing, under construction and planned reactors



Future estimates (IAEA, 2017)



- 20 new reactors (18 GWe) connected in 2015 and 2016, the highest number since 1980s, BUT
 - this pace follows LOW case trajectory
 - much faster pace is needed for HIGH case (17-27GWe/yr)
 - **Only 3 new connections (2.3 GWe) and 2 new construction starts in 2017 !**
- Currently Nuclear power falls short of its potential..

Challenges for NPP

Expansion

- Political leadership
- Societal acceptance
- Preparation and development of NPP projects
- Economy of nuclear power
 - Funding and Financing new projects
 - Increase in construction and maintenance costs
 - Electricity markets
 - Alternative technologies
- Human resources development
- Proliferation risks, safety and security
- Long-term repository of nuclear waste



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Thank you!

