



CIGRE 2014: Opening Panel Challenges in Power System Transition; Regional Perspectives

Moderator

Mark Waldron
Chairman of CIGRE Technical
Committee



Running of the Session

- Phones off or on silent please!
- Five topical presentations
- 20 minutes per presentation
- Short opportunity for questions after each presentation
- Questions, discussion & conclusion session at the end
- Please participate



Concept of the Session

- Affordable, reliable, sustainable access to electric power for all
- Differing perceptions of success
 - ~1.3bn (20% of population) without access
 - Customer Minutes Lost
- Social, economic & geographic factors
- Technology as an enabler
 - Differing applications of solutions

Region	Population without electricity millions	Electrification rate %	Urban rate %	Rural rate %
Developing countries	1,257	76.5	90.6	65.1
Africa	600	43	65	28
North Africa	1	99	100	99
Sub-Saharan Africa	599	32	55	18
Developing Asia	615	83	95	75
India	306	75	94	67
Rest of developing Asia	309	87	95	80
Latin America	24	95	99	81
Middle East	19	91	99	76
Transition economies & OECD	1	99.9	100.0	99.7
World	1,258	81.9	93.7	69.0



Solar



Growth

Figure 81. OECD and non-OECD net electricity generation
1990-2040
trillion kilowatthours

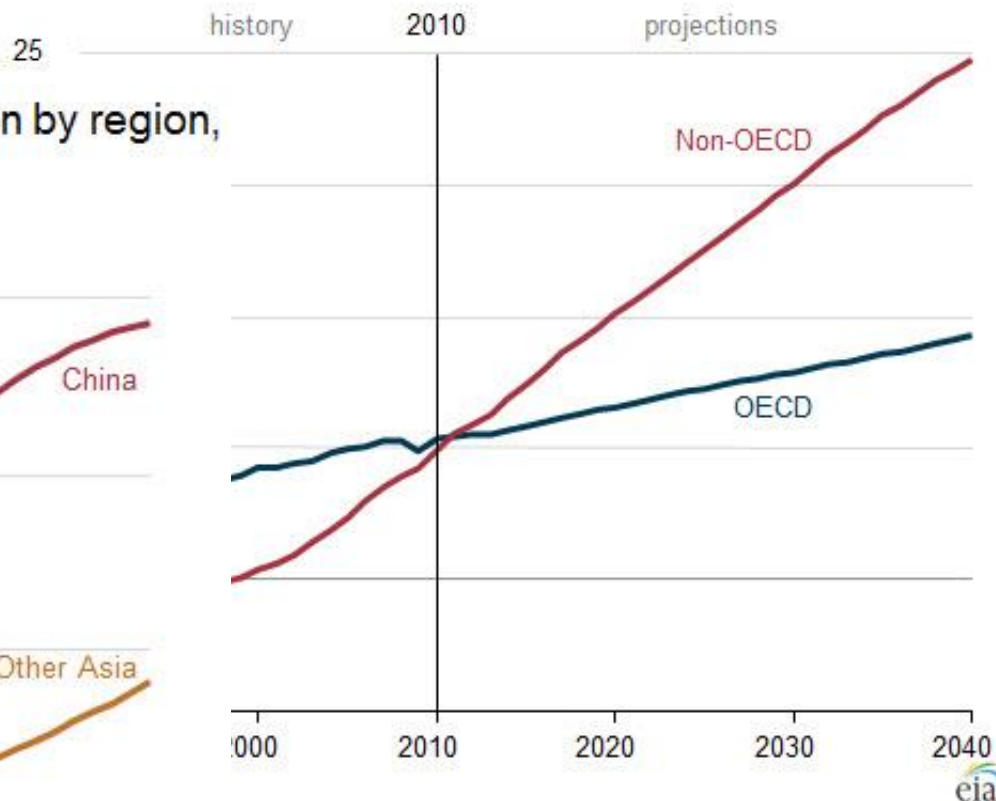
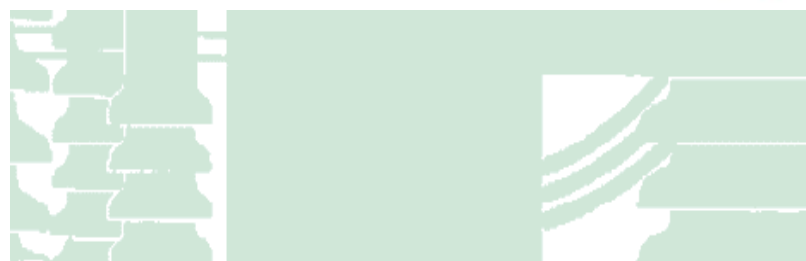
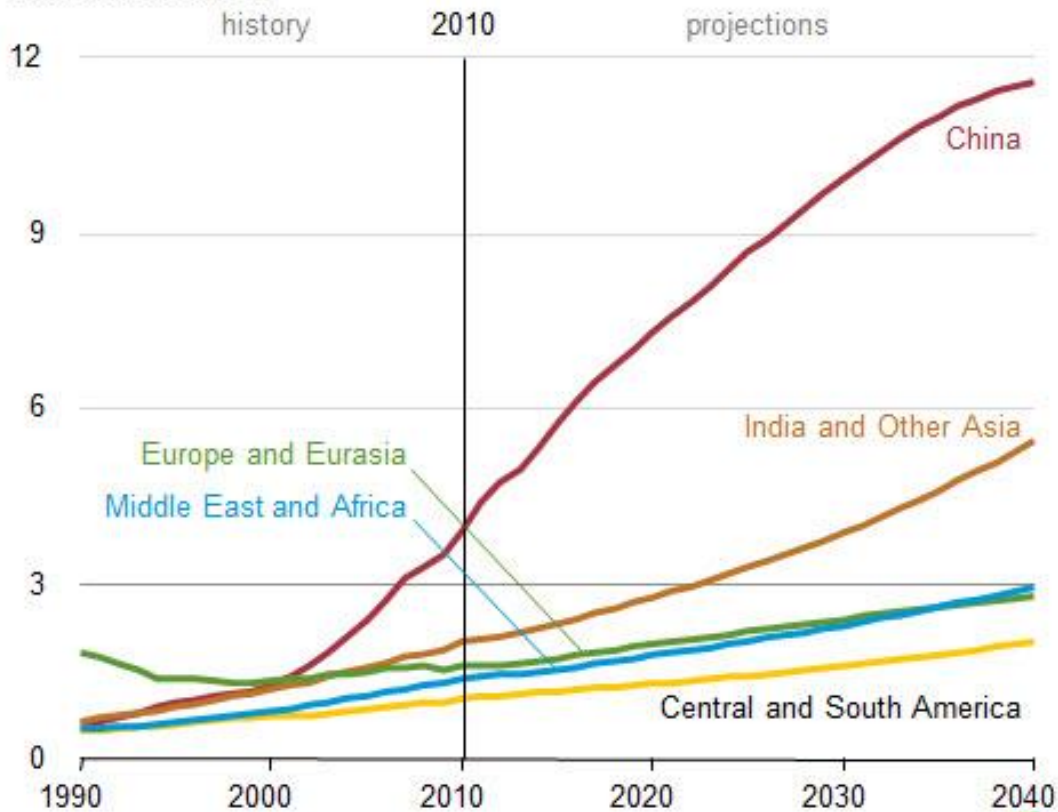


Figure 82. Non-OECD net electricity generation by region,
1990-2040
trillion kilowatthours



Regional approach

- India
- Europe
- Africa
- Asia-Oceania
- North America
- Technological, Environmental & Social aspects
- Common themes, regional specifics
- Mutual learning



PRESENTATIONS

Conclusions

- Clear, coherent energy policies
 - Growth, renewal, access
 - Co-operation, markets, economics
- Sustainable exploitation of resources
- Role/impact of industrialisation
- Tailored technological solutions
 - Interconnection & local
 - Conventional & renewables
- Affordable, reliable, sustainable access to electric power; can we deliver?