



INTERNATIONAL ENERGY AGENCY

# **Electricity and Development: Key Challenges**

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Executive Director, IEA**

**Nairobi, 13-14 July 2005**



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# Strategic Challenges

- Security of energy supplies
- Threat of environmental damage caused by energy
- Investment in energy infrastructure
- **Uneven access of the world's population to modern energy**



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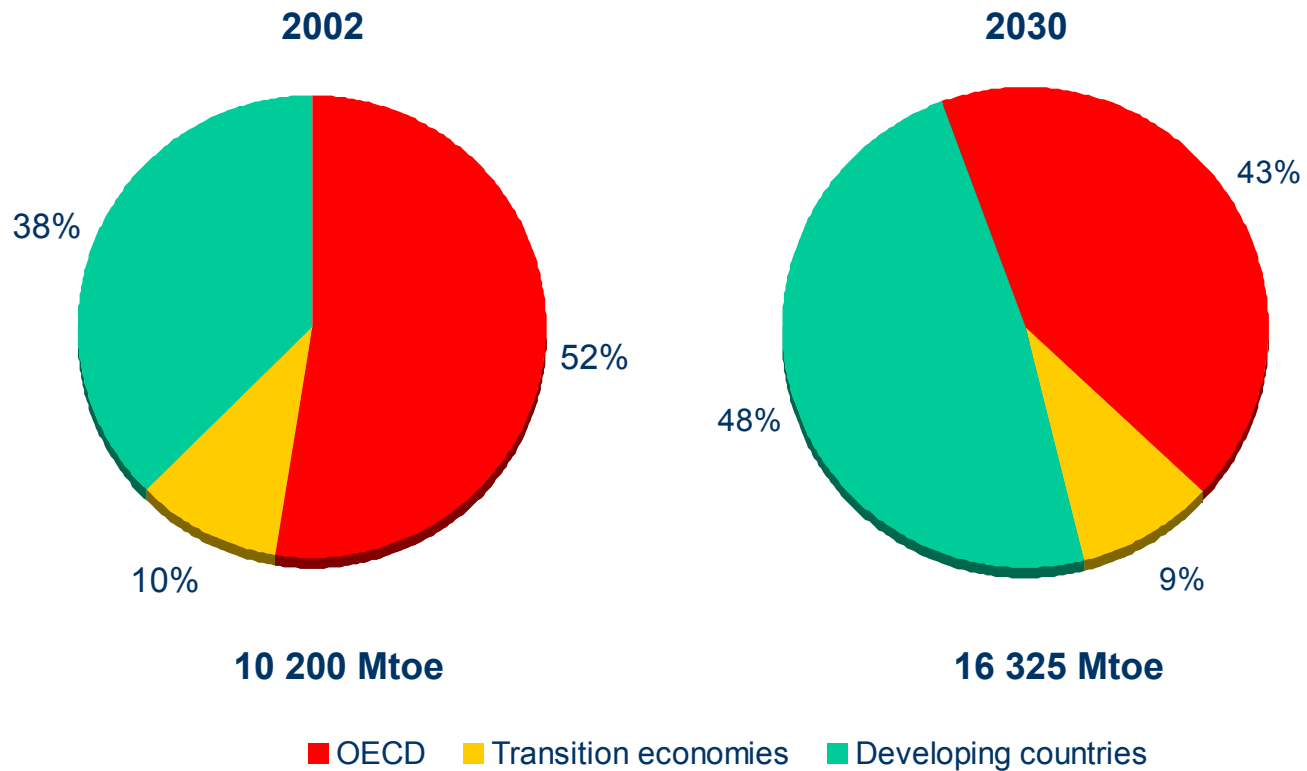
# Energy Outlook in Developing Countries



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# Regional Shares in World Primary Energy Demand



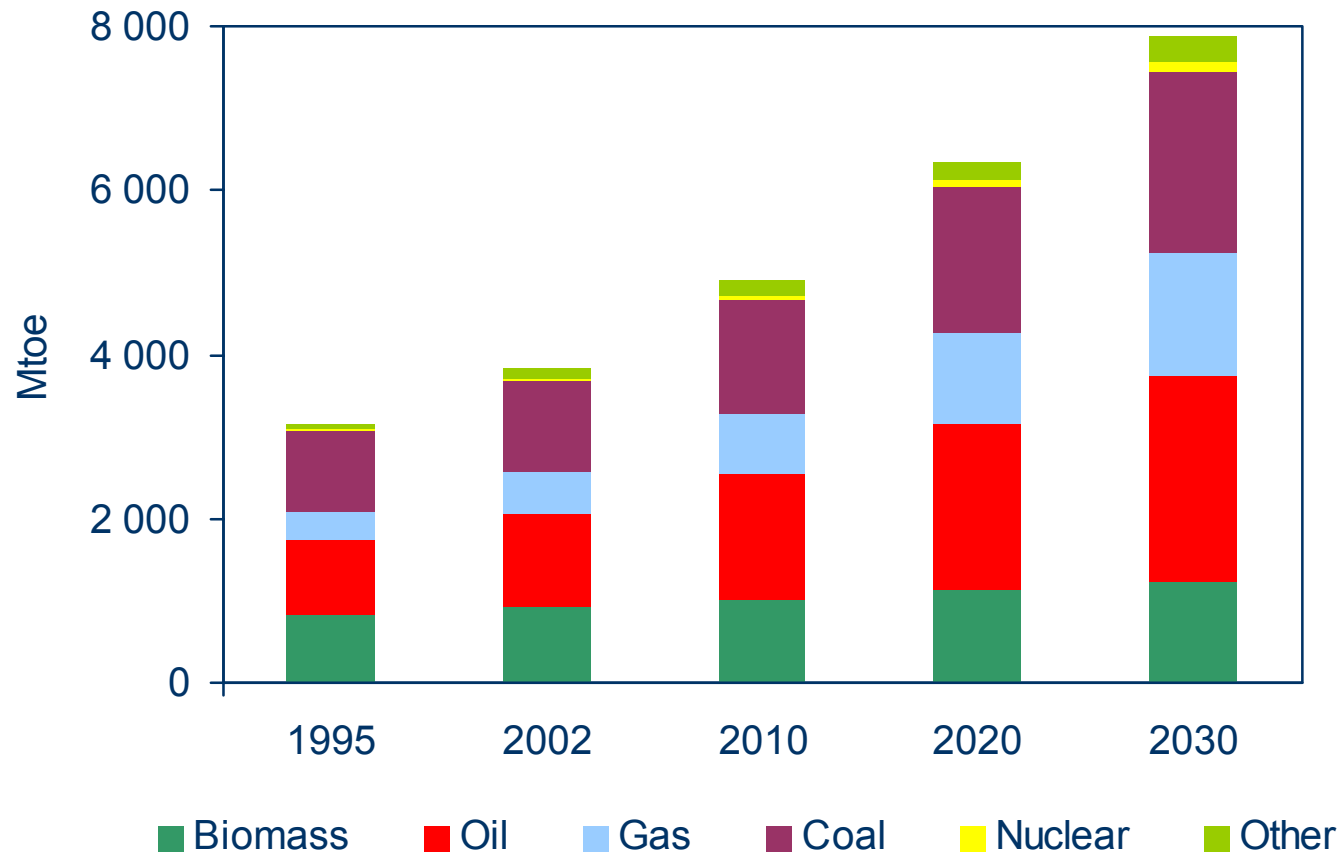
**Two-thirds of the increase in world demand between now and 2030 comes from developing countries, especially in Asia**



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## Primary Energy Demand in Developing Countries



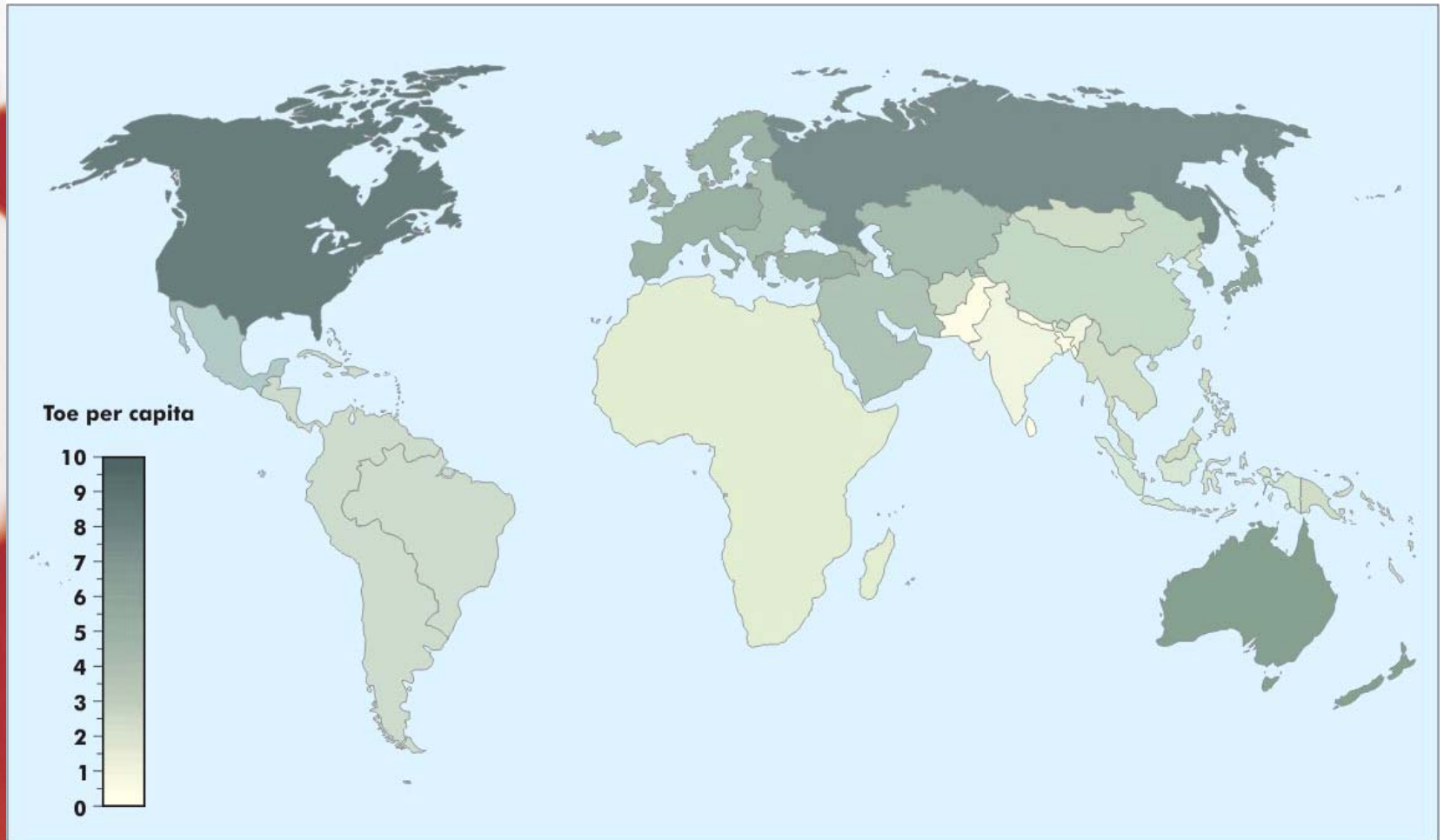
**Fossil fuels account for the bulk of the increase in developing countries' energy use, but traditional biomass use grows too**



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## Per Capita Primary Energy Use, 2030



**Per capita energy use remains much lower in developing countries**



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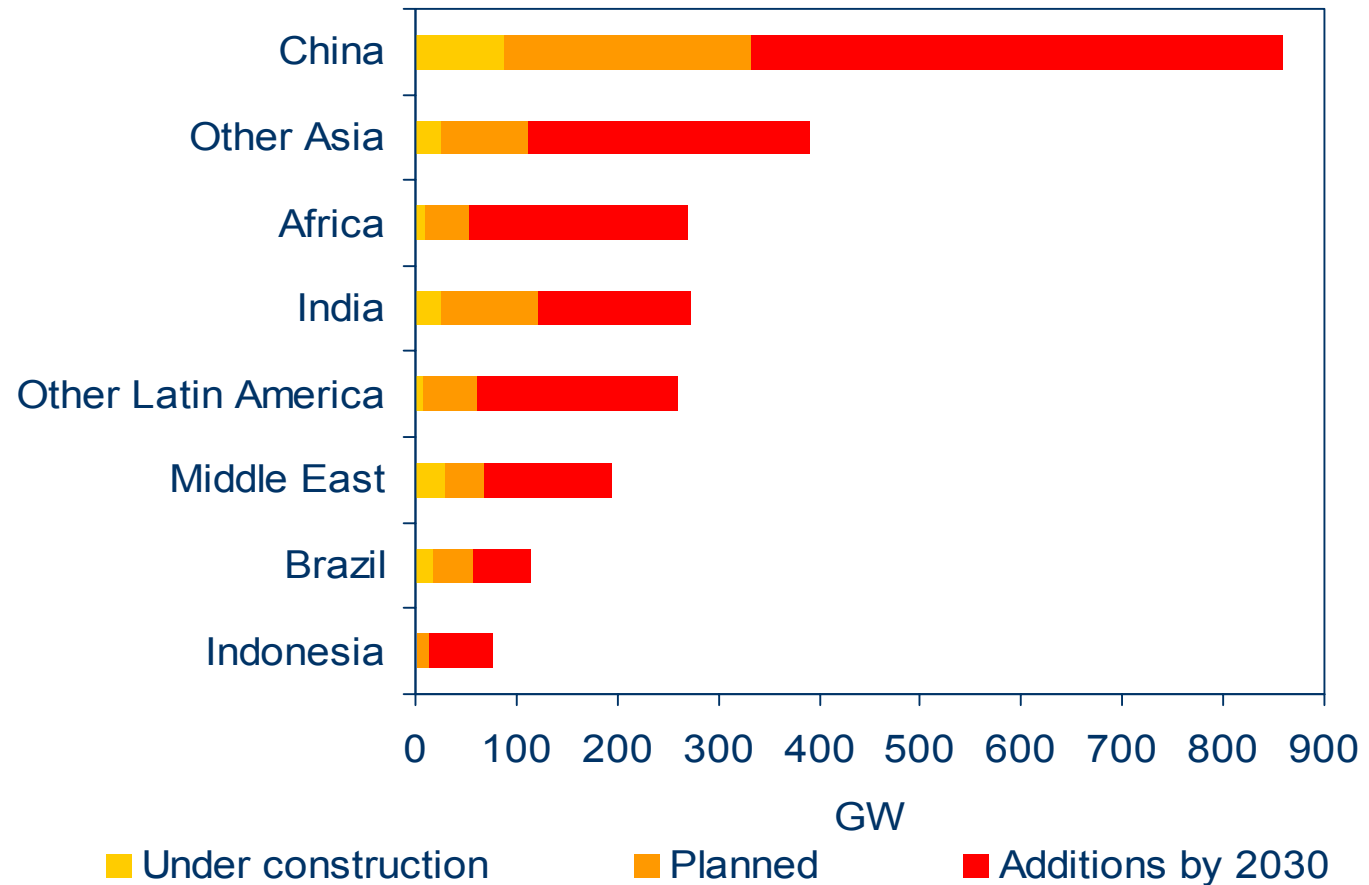
## Electricity Outlook in Developing Countries



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# Generating Capacity Requirements 2003-2030



**Timely investment are essential to meet increasing demand**

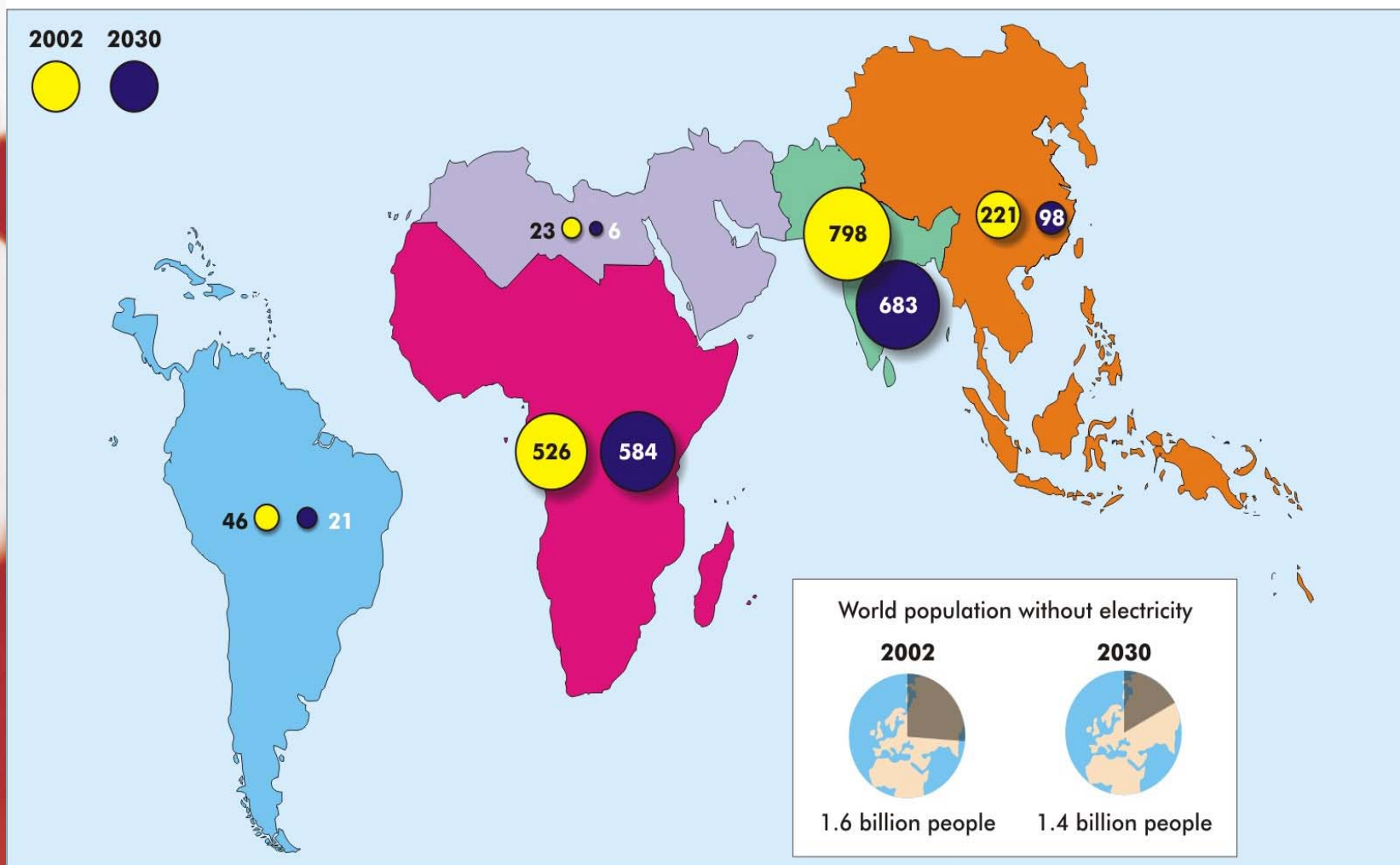




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# Electricity Deprivation



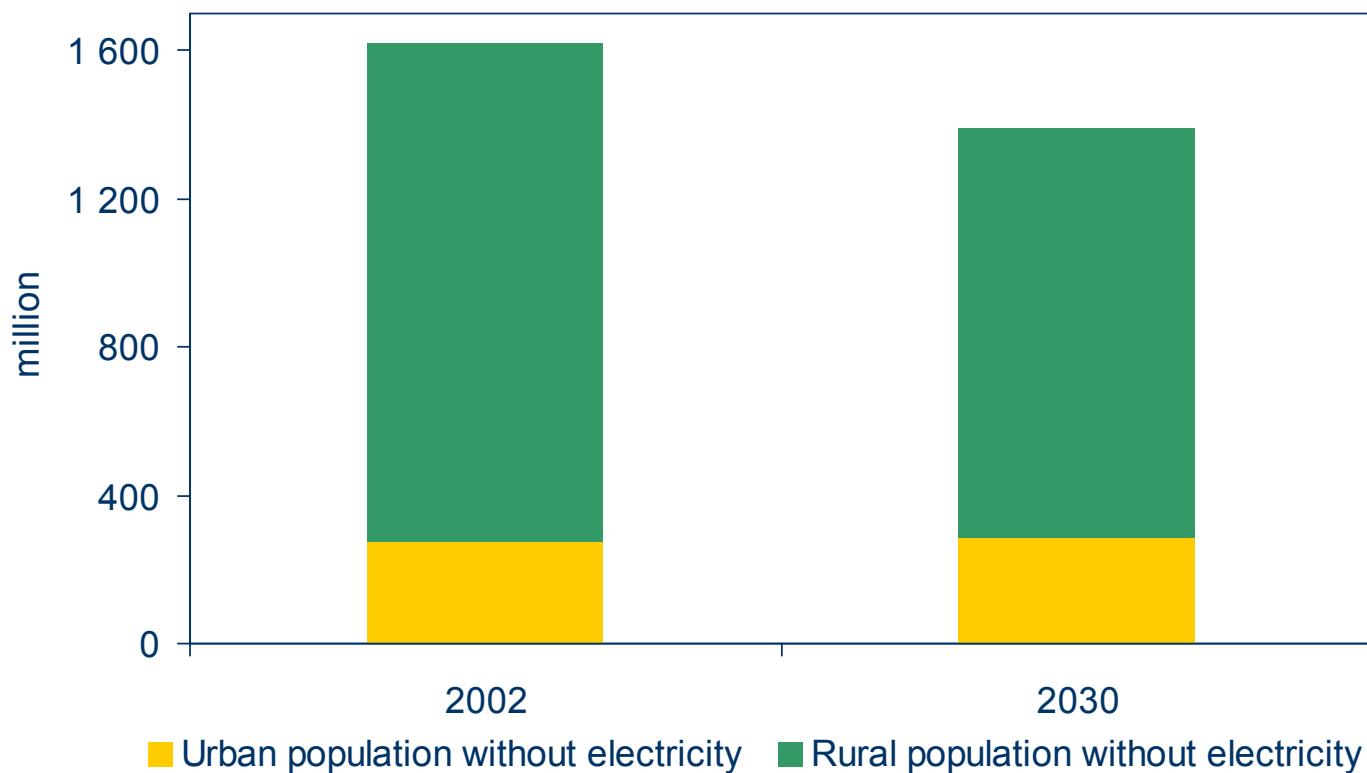
**In 2030, if no new policies are implemented, there will still be 1.4 billion people without electricity**



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## World Population without Electricity in Urban & Rural Settings



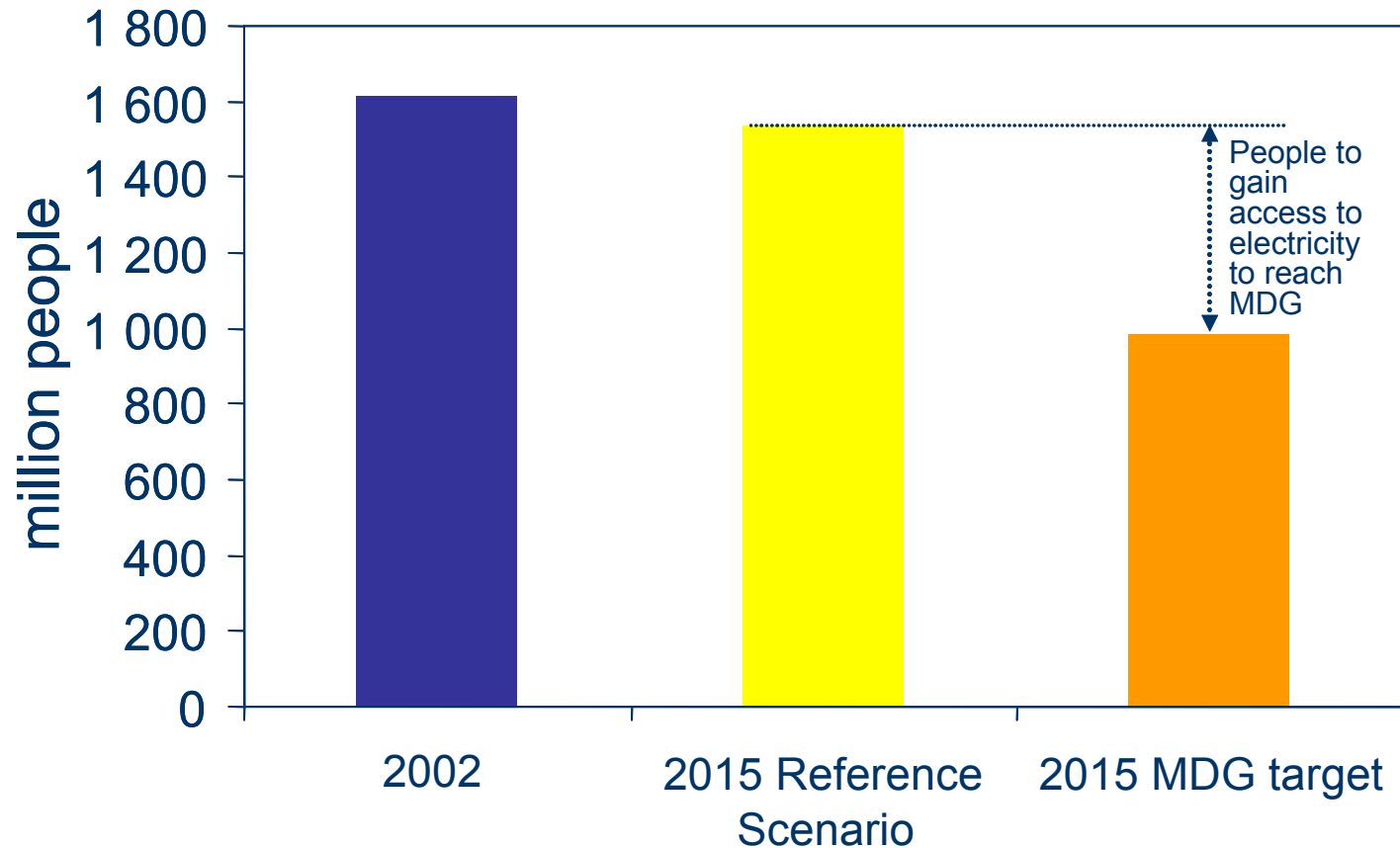
**The number of people without electricity grows slightly in towns & cities, but falls in the countryside with rural-urban migration**



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## Energy Implications of Halving Poverty in Developing Countries by 2015



**To reach the MDG target, 500 million more people need to be electrified at an extra cost of \$16 billion per year**



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## **IEA in the Energy and Poverty Issue**

- **Best available energy statistics for developing countries**
- **Recently developed energy-poverty database**
- **Quantitative analysis and projections of energy**
- **Setting the energy poverty questions in the global energy context**
- **Outreach to OECD governments and energy / financial communities**



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## Policy Implications

- Energy is a prerequisite for development and there is an **urgent need for decisive action** to accelerate energy development in poor countries
- **Good governance** in the energy sector is critical to attracting infrastructure investment
- **Sector reforms** must aim to expand access to and affordability of cooking/heating fuels and electricity
- **Industrialised countries** have economic, political and security **interests** in helping poor countries



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## Conclusions from Electricity & Development Workshop, 17-18 Jan 2005

- Objective: improve the understanding of the role of electrification in alleviating poverty and identify creative ways to improve investment flows to energy projects in developing countries
- Energy is a prerequisite for economic development
- Energy should be recognized as a key component of the development debate
- No “silver bullet” for the electrification challenge: dedicated efforts, local-level initiatives and ring-fencing of resources for electricity provision are indispensable