



'Successful past, sustainable future'

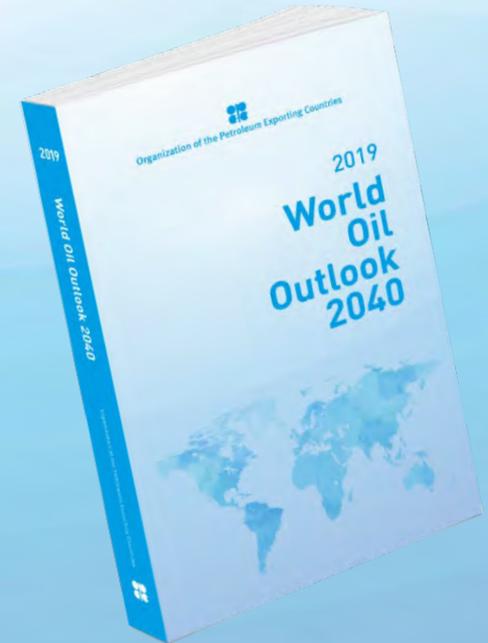
World Oil Outlook 2040

OPEC views on current pathways and sustainable energy market outlooks

Presented to

First **IEF-IRENA** Seminar on Renewables and Clean Energy Technology Outlooks

Riyadh, 20 February 2020



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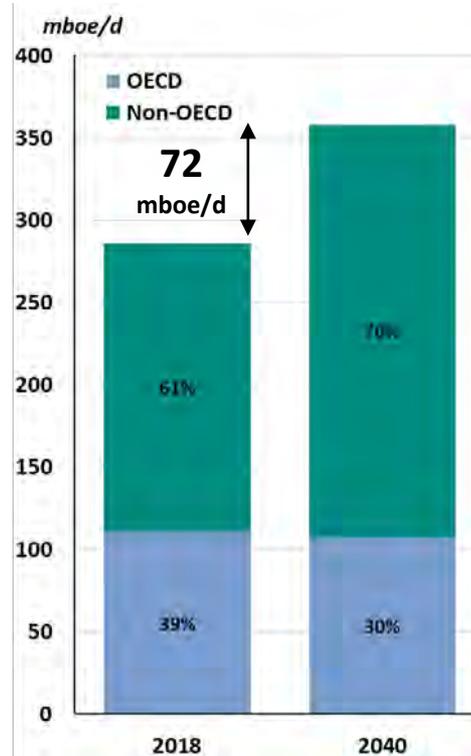
Total global primary energy demand is forecast to reach 357 mboe/d by 2040



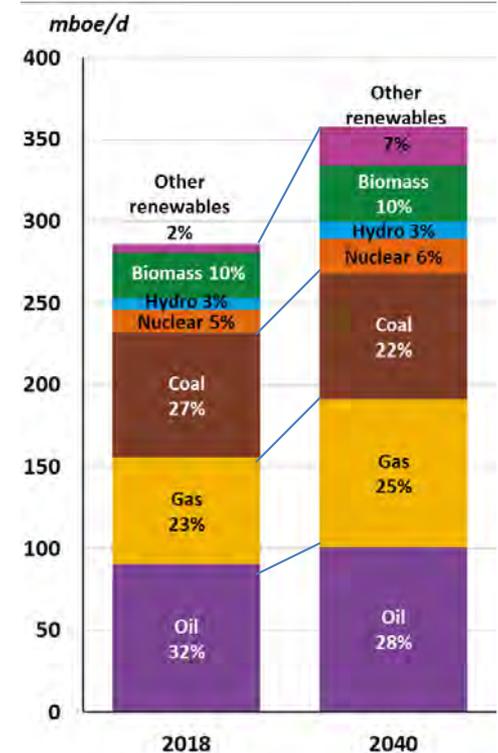
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- Total primary energy demand increases by 72 mboe/d (25%) between 2018 and 2040
- Demand growth seen mostly in **non-OECD regions**, predominantly in Asia
- Oil maintains its leading role in the global energy mix (28% by 2040)

Primary energy demand by region



Primary energy demand by fuel



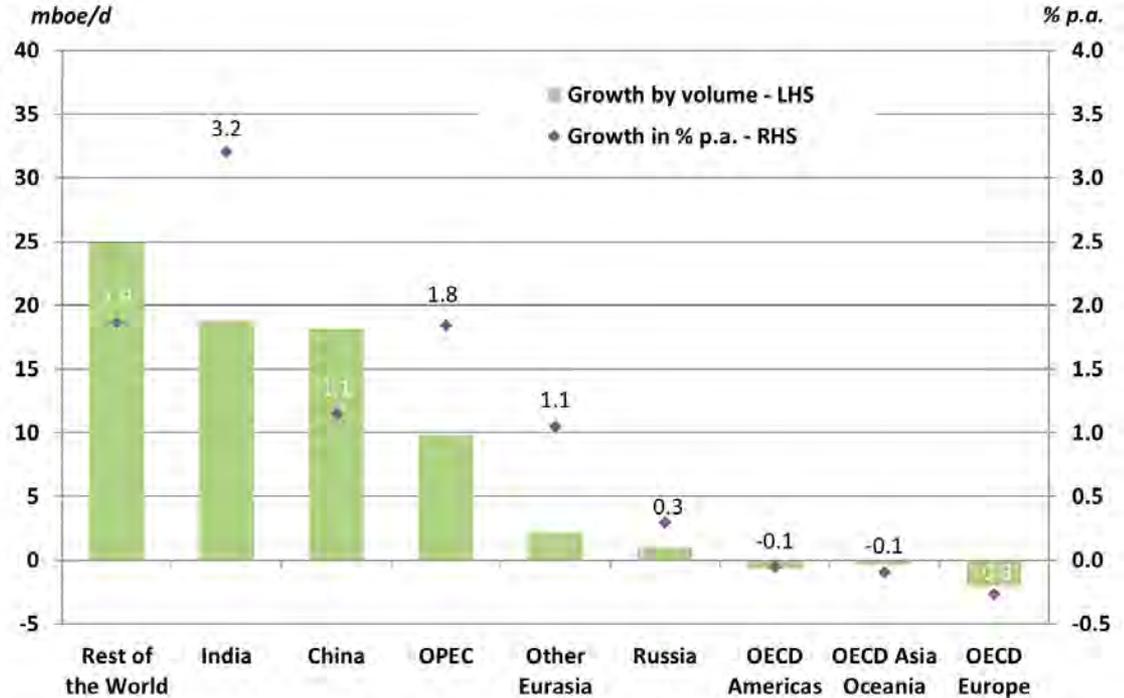
Demand in India and China will account for more than 50% of total growth in non-OECD countries



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- Energy demand in **China** and **India** will increase by 1.1% p.a. and 3.2% p.a. respectively.
- Demand in the **OECD** region is expected to contract over the long-term, particularly in OECD Europe.

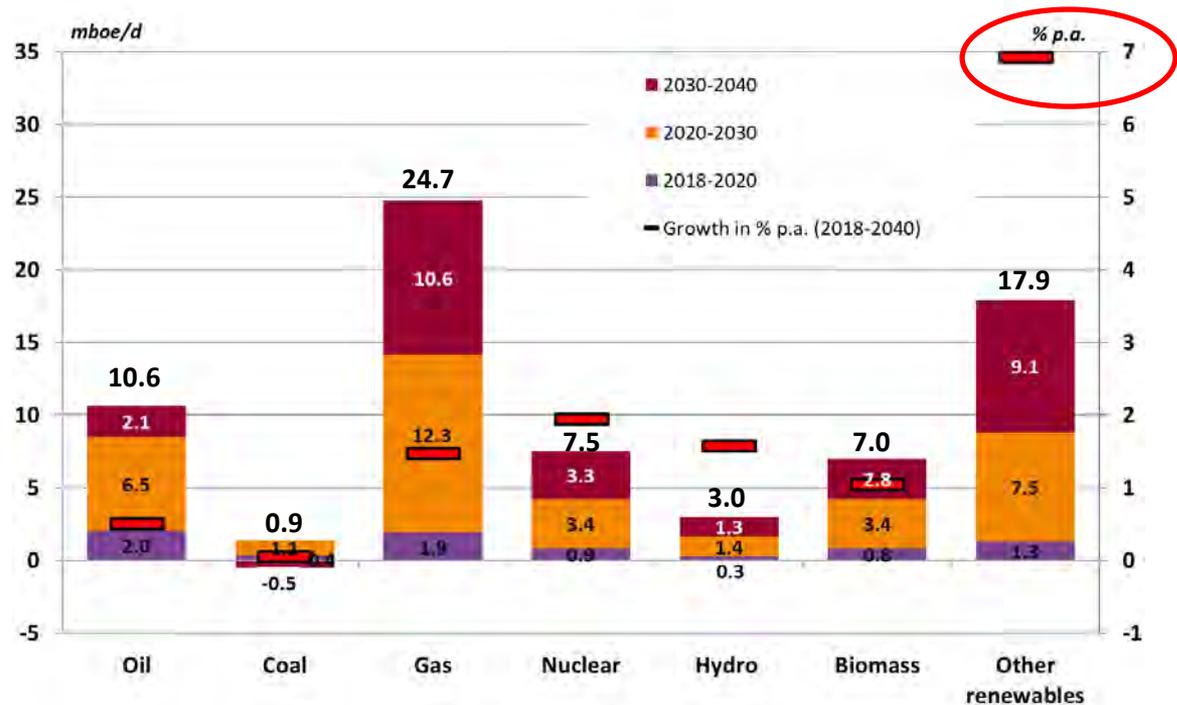
Growth in primary energy demand by region, 2018-2040



All forms of energy will be required

- **'Other renewables'** (including solar, wind and geothermal)
 - largest growth in percentage terms (+6.9% p.a., or +17.9 mboe/d)
- **Gas**
 - largest increase in demand by volume (+24.7 mboe/d)
- **Oil**
 - demand remains at relatively healthy levels (+10.6 mboe/d)

Growth in primary energy demand by fuel type, 2018-2040

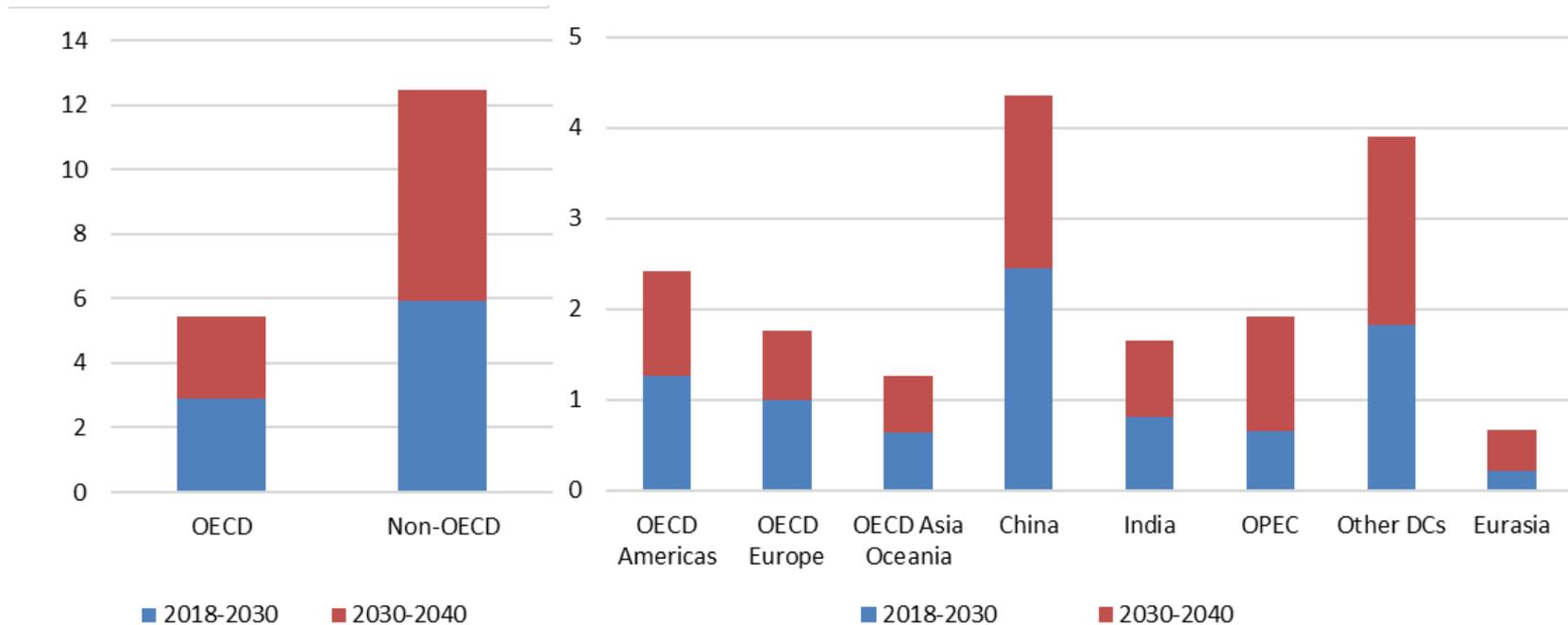


Non-OECD leads future capacity additions in 'other renewables'



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Growth in primary energy demand for 'other renewables'*, in mboe/d



*Solar, wind, geothermal, tide etc.

Concluding remarks

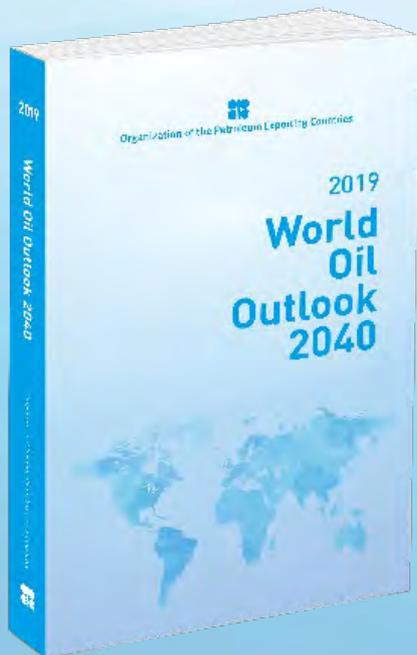


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- All energy sources will be needed for the foreseeable future.
- The dual challenge of providing for growing energy needs and reducing emissions requires further efforts and cooperation.
- Innovative technology advances could help to overcome this challenge.
- Energy policies will remain critical in shaping future energy mix
- The global energy policy framework has to take into account all stakeholders' needs.
- Support for clean energy technology should include variety of choices, such as:
 - Renewable energy
 - Clean fossil fuels
 - CCUS
 - Hydrogen etc.



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Thank you.

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