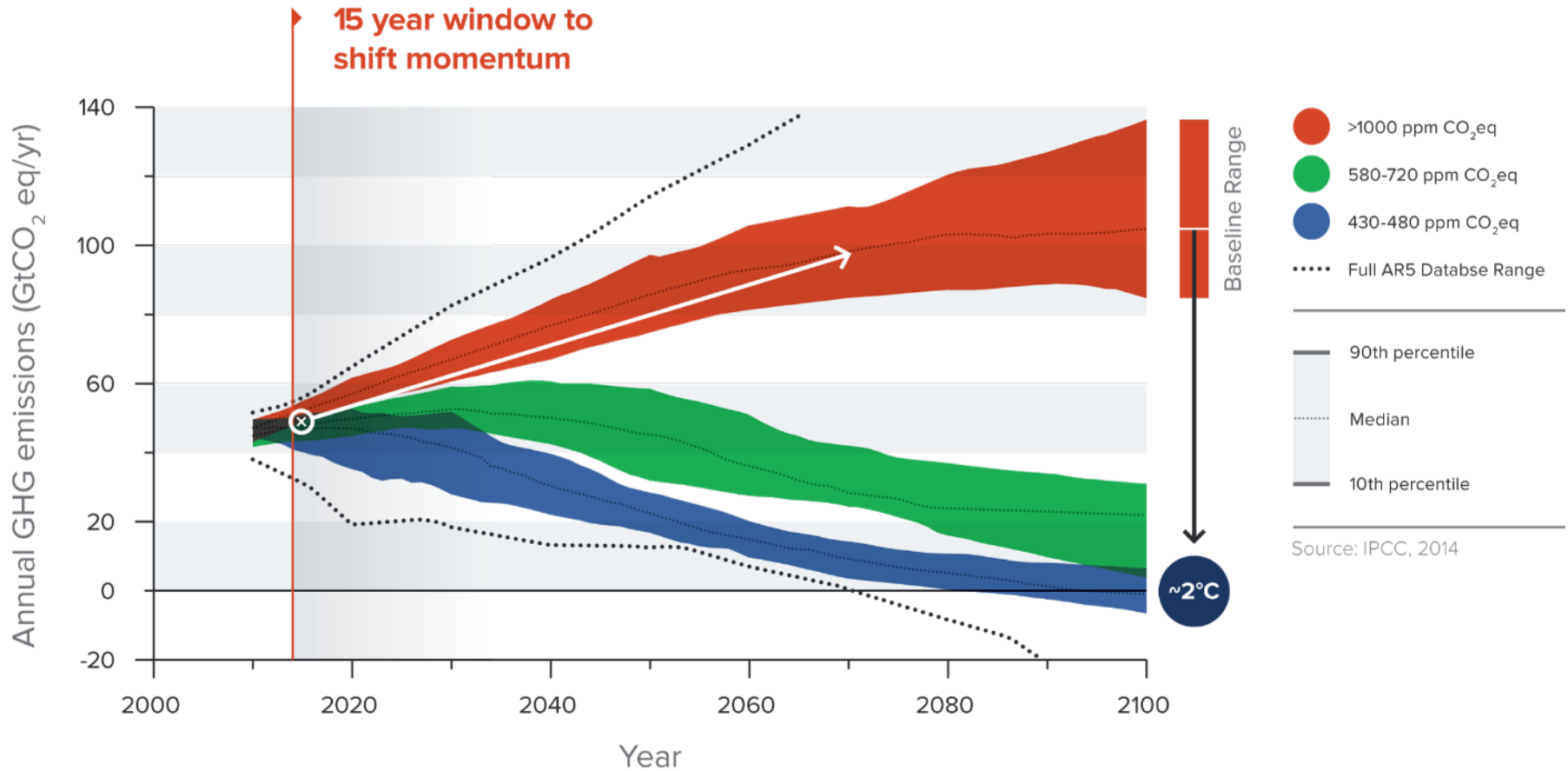


# **1. The next 15 years is critical for the clean energy transition**

# Climate performance off track: next 15 years critical

GHG emissions projections

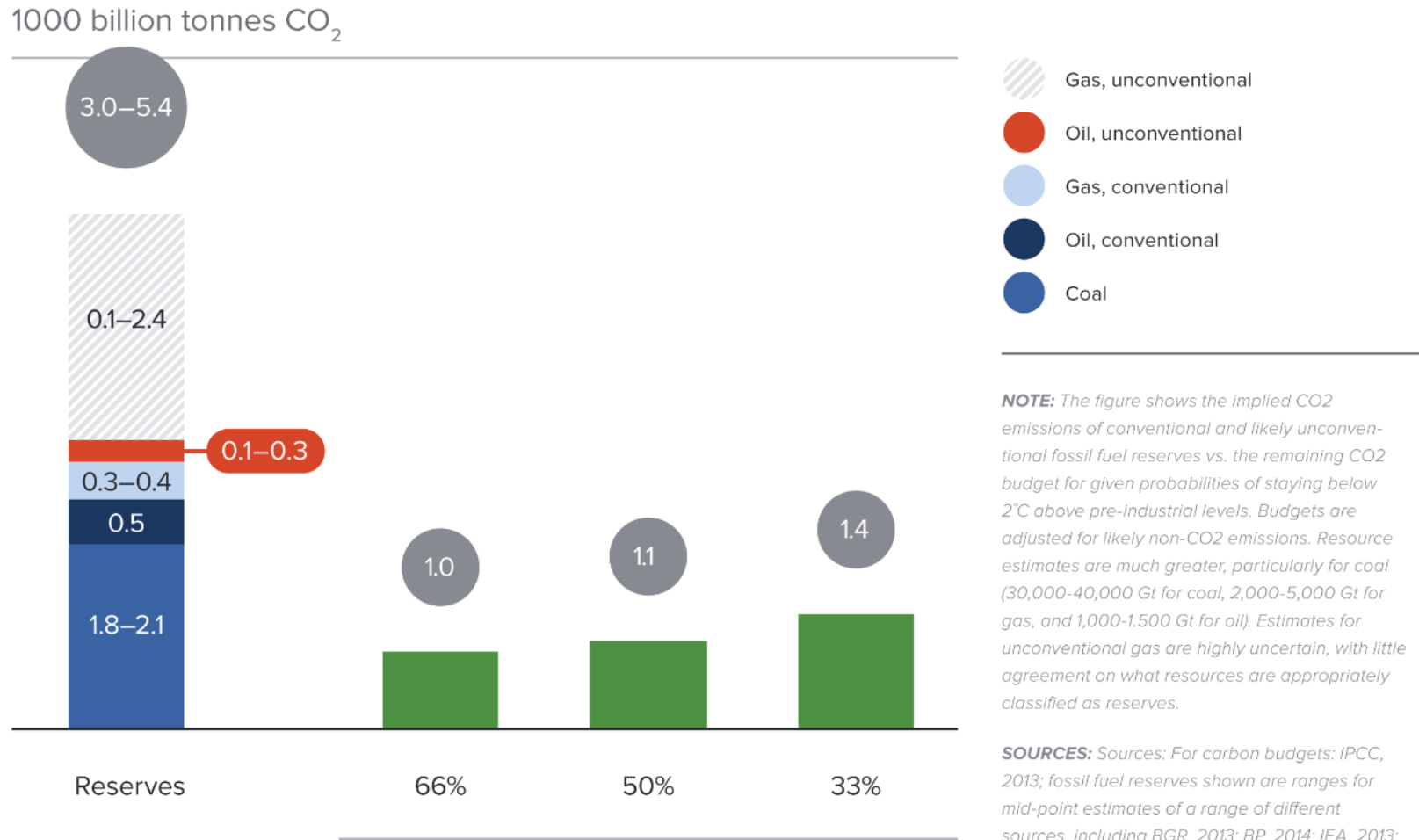


Source: IPCC

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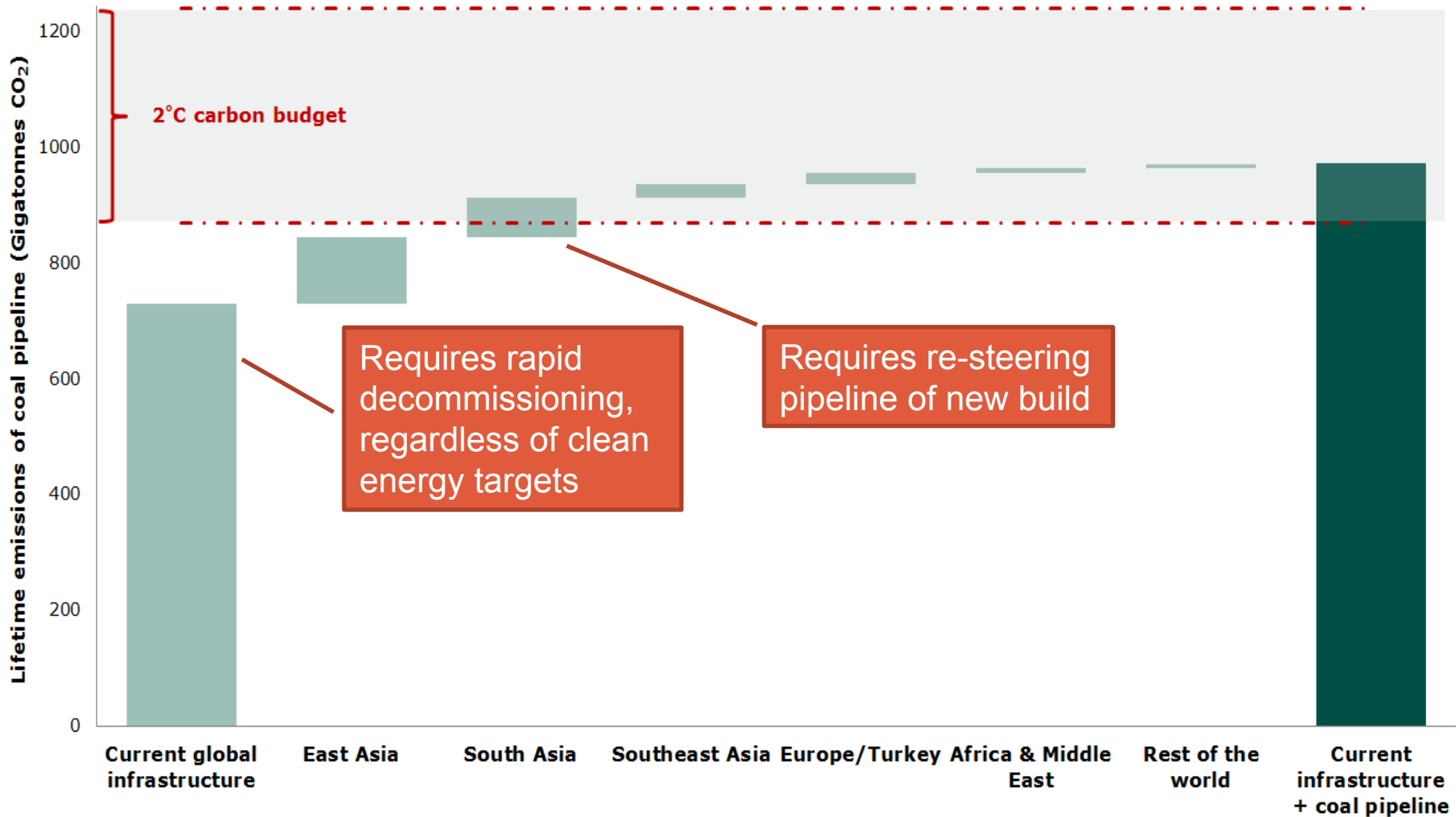
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# Fossil fuel reserves exceed the carbon budget



Source: ODI analysis of data from Shearer, Ghio, Myllyvirta & Nace. 2015. *Tracking the Global Coal Plant Pipeline*. Sierra Club.

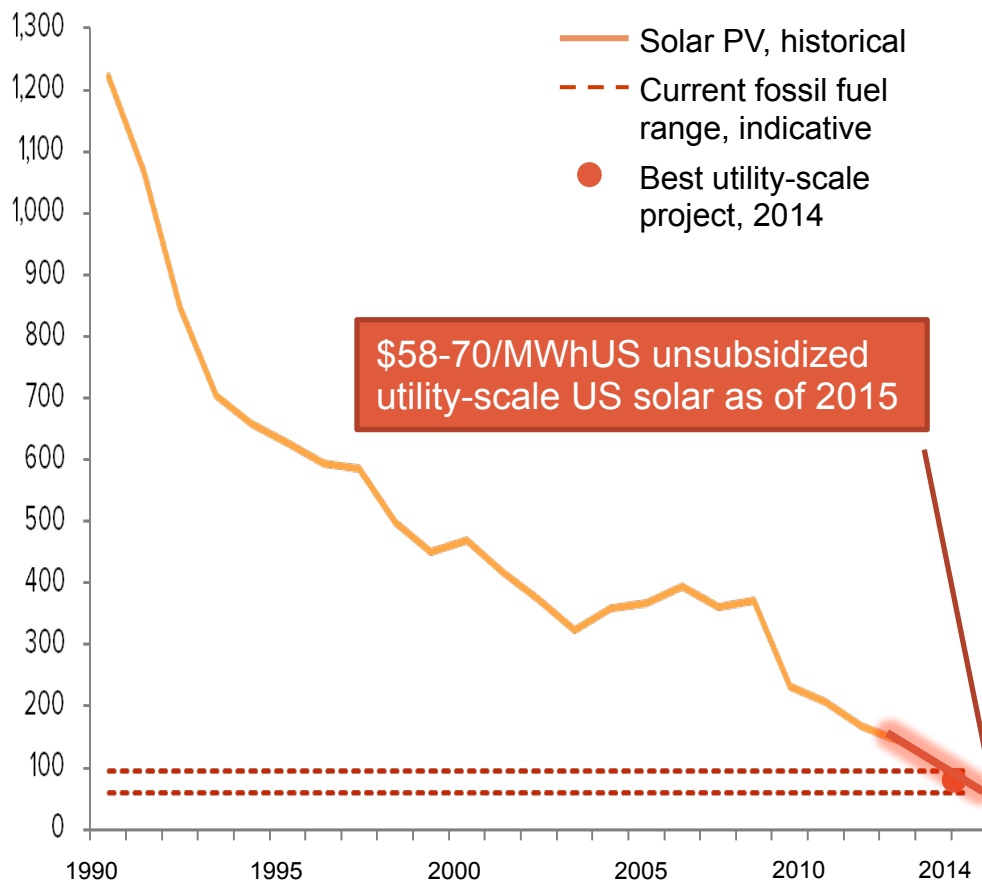
# OECD coal still consumes most of the CO2 budget, and addition of China and India's coal bursts it



# The costs of solar and wind energy have plummeted

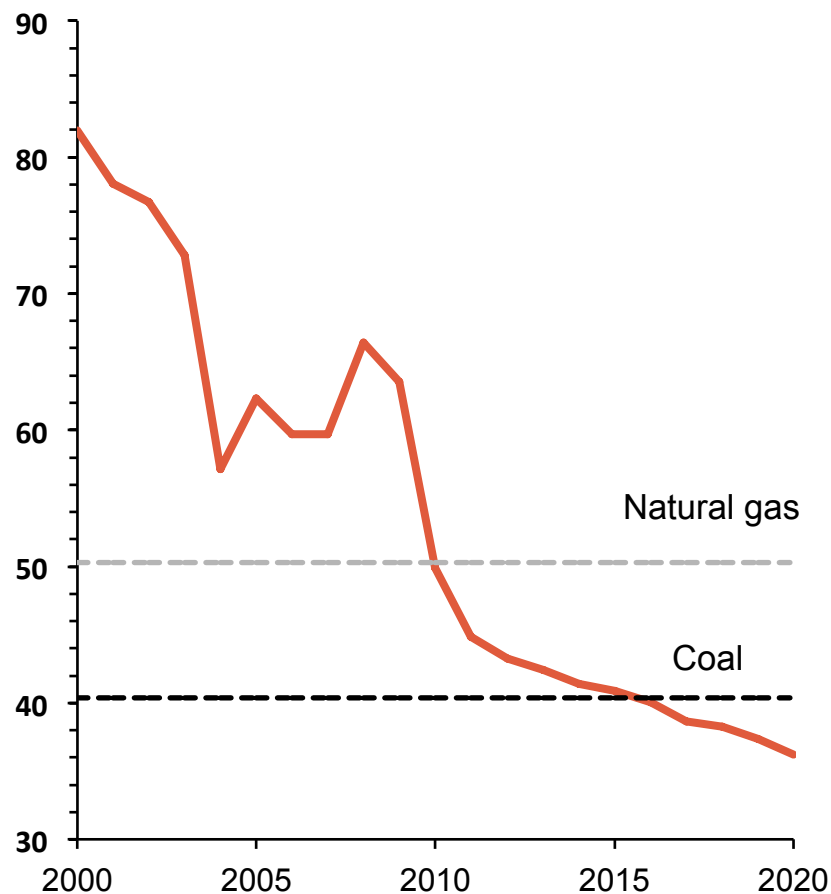
## Solar power costs over time

USD/MWh



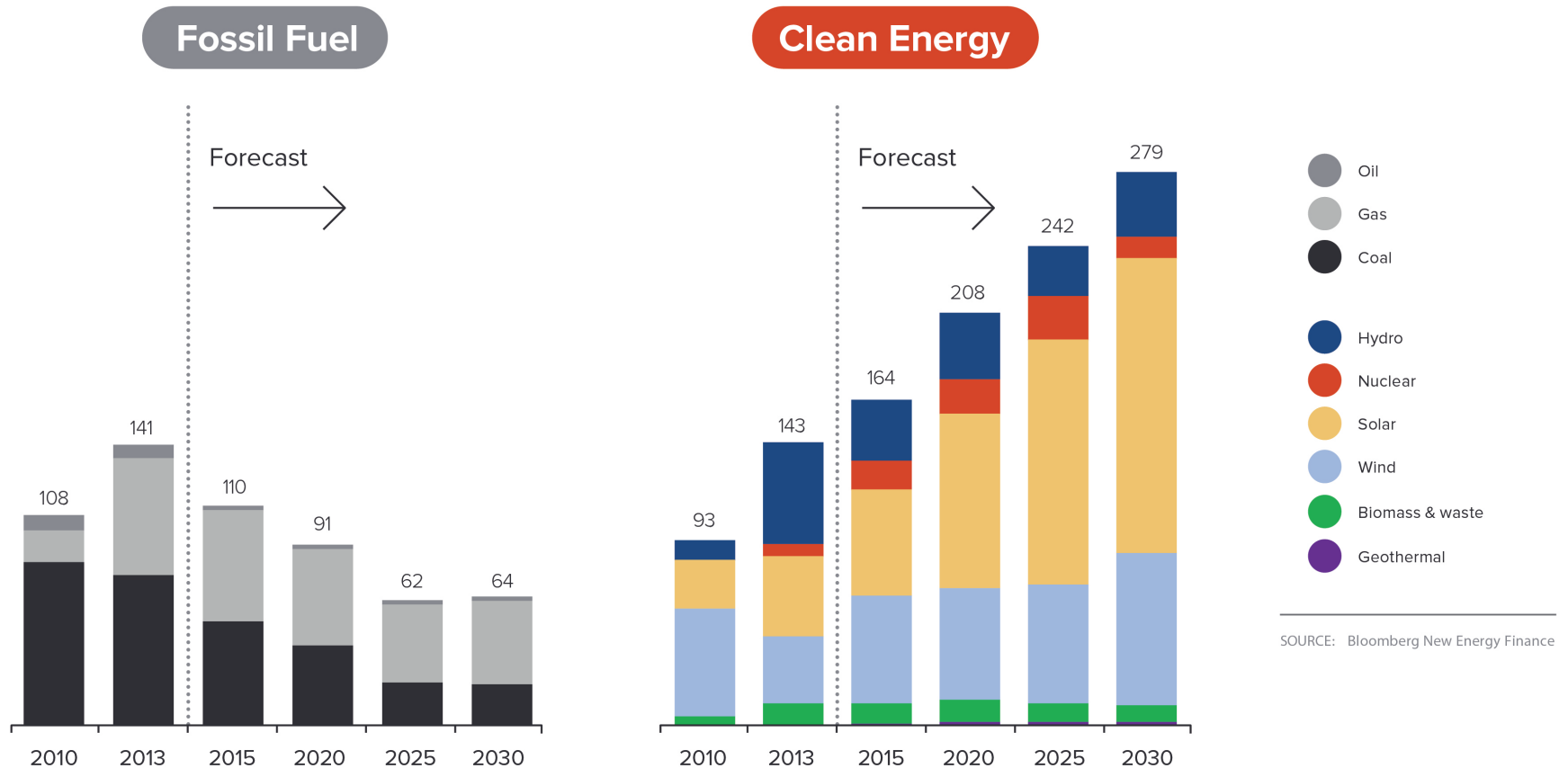
## Wind power costs over time

USD/MWh



Note: Assuming coal price of 70 USD/tonne and gas price of 10 USD/Mmbtu. Assuming a 35% capacity factor for wind power i.e. 35% utilisation, and a 15% capacity factor for solar power

# In each of last three years, more low-carbon electricity capacity was added than fossil fuel capacity (GW)



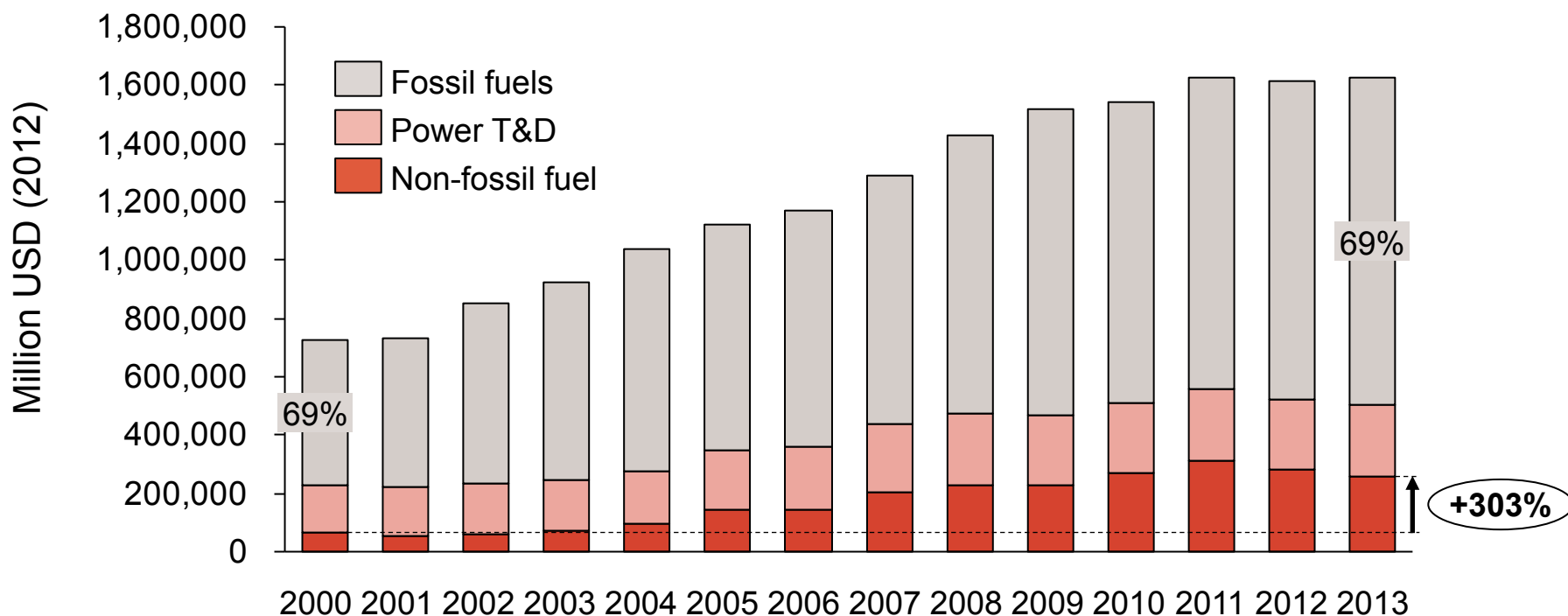
Source: Liebreich, M., 2015. *State of the Industry Keynote*. Presented at the Bloomberg New Energy Finance Annual Summit, New York, 14 April. Available at: <http://about.bnef.com/presentations/liebreich-state-industry-keynote/>.

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# Investments in low-carbon energy have increased, but 2/3 still goes to fossil fuels

Investment in global energy supply by fossil fuel, non-fossil fuel (renewable energy, nuclear, biofuels) and transmission & distribution in the power sector.



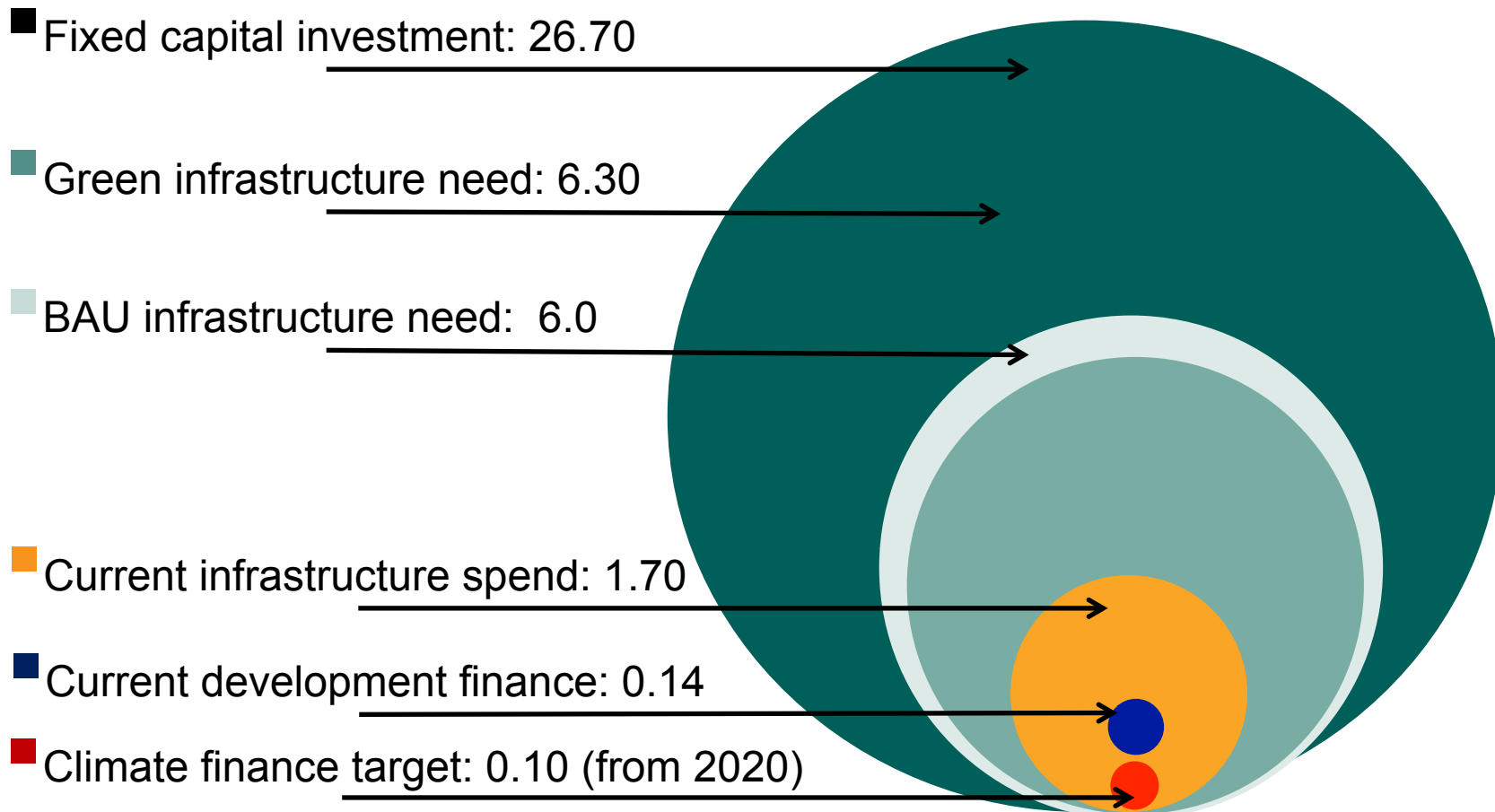
Source: IEA (2014): World Energy Investment Outlook.

## 2. There is no capital shortage for clean energy



# Capital pools for clean energy and infrastructure

Annual projections for 2015-2030, in US \$trillion



# Private Finance: The allure of institutional capital

- Institutional investors control over US\$71 trillion of assets
- OECD estimates that less than 1% of their assets are currently allocated to direct infrastructure investment, of which clean energy infrastructure is a small fraction
- New financing vehicles like green bonds and YieldCos are growing rapidly, and can reduce liquidity risk and transaction costs, opening clean energy to a wider range of investors.

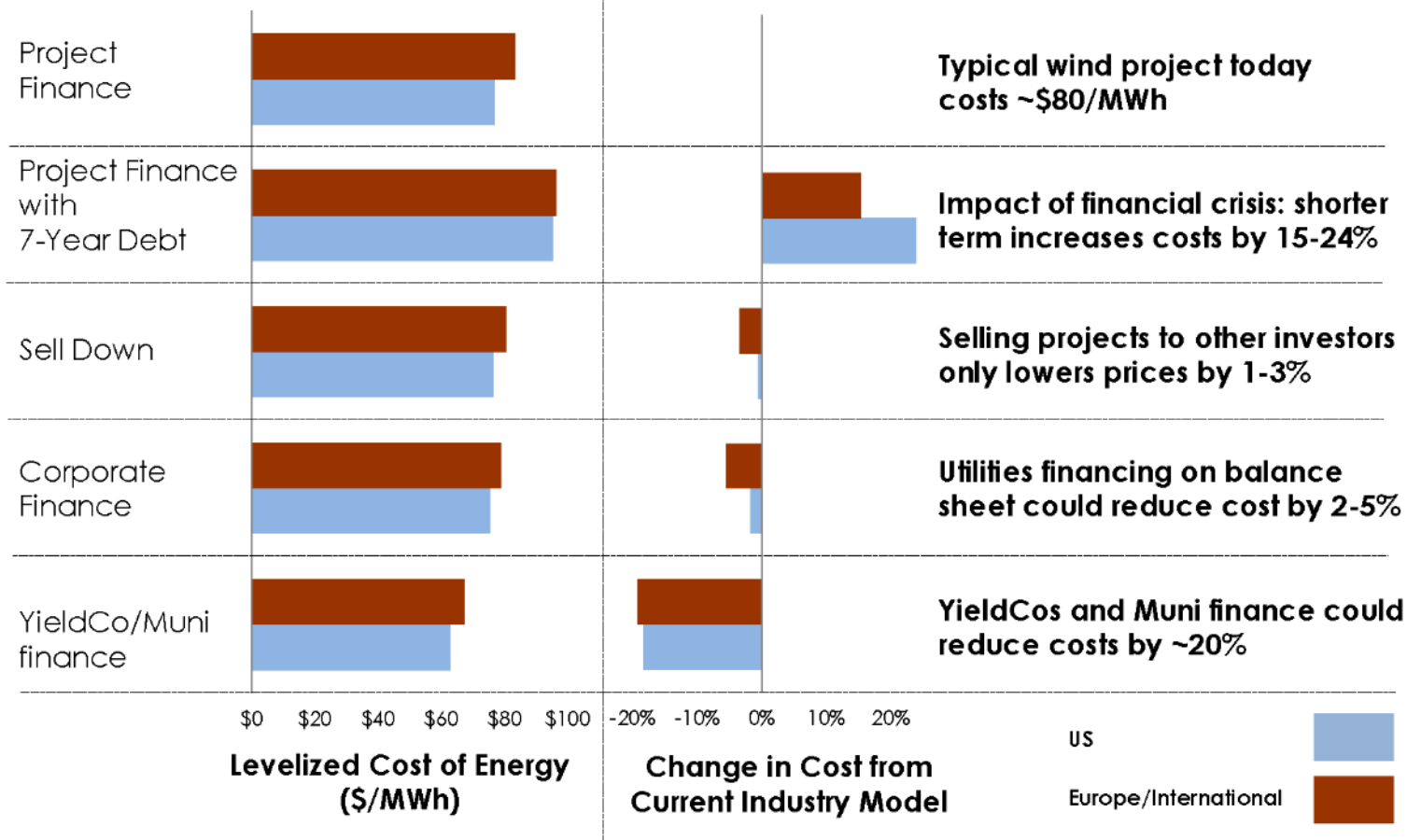


Source: Overseas Development Institute

3. Technology is already competitive, but power sector private financing is designed around fossil fuels.

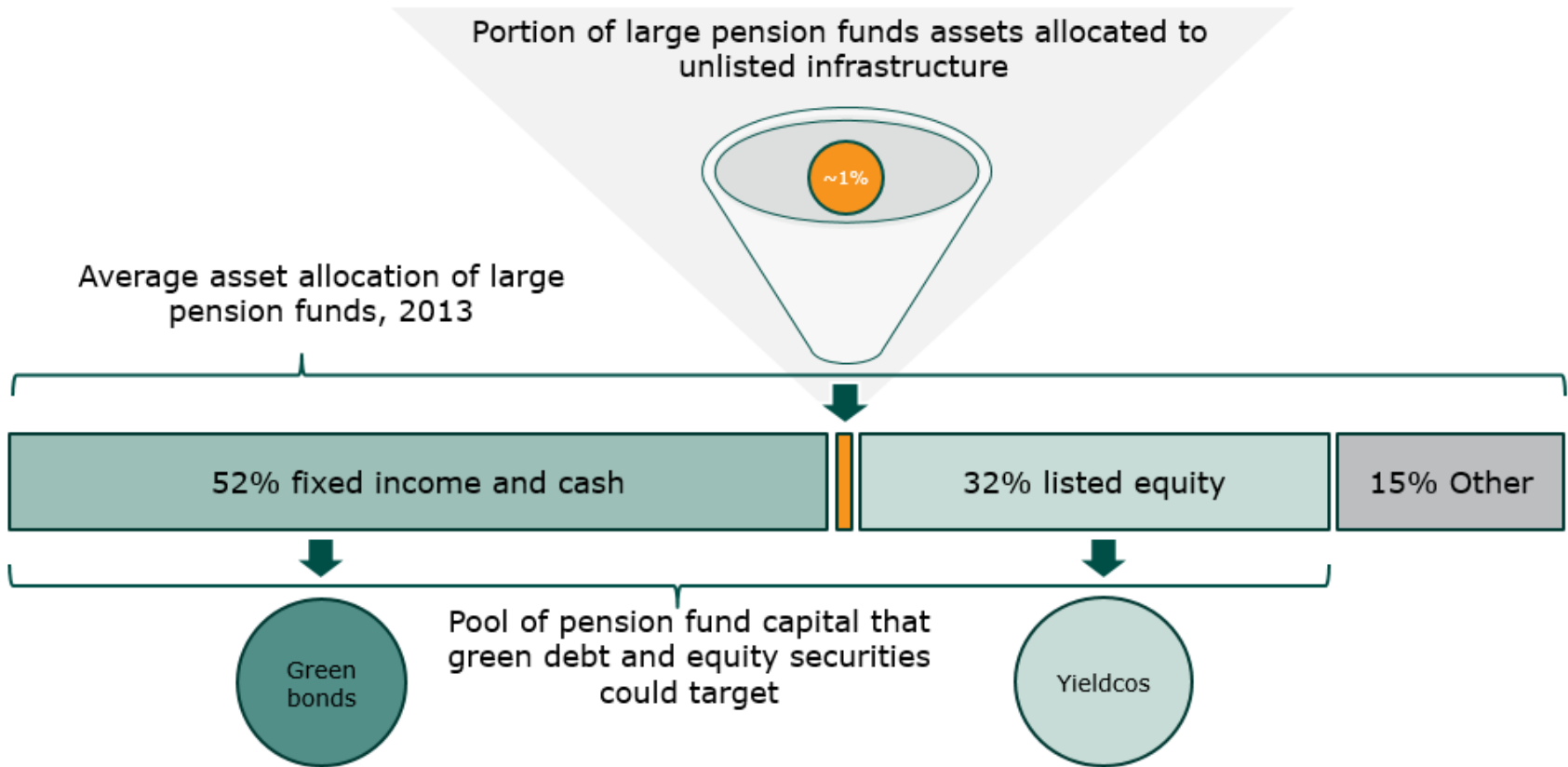
# Private Finance: New models better fit to renewables could reduce capital costs by 20%

## Wind power financing options



Source: Nelson, D., *Roadmap to a Low Carbon Electricity System in the U.S. and Europe*. Climate Policy Initiative, June 2014.

# Private Finance: Using capital markets to close the clean energy gap



Source: Granoff, I et al. *The nested barriers to green infrastructure development* (forthcoming)

4. Public finance also still favors fossil fuels, but DFIs can leverage shift, redesigning the sector around the benefits of clean energy.

# Public finance: MDBs and DFIs have a significant role to play in scaling up five forms of international cooperation

## Convening initiatives

- These allow public and private institutions to share best practices. Many problems and solutions are common across countries (e.g. Global Innovation Lab for Climate Finance)

## Risk mitigation initiatives

- Allow investors to assemble portfolios that meet their risk-return and liquidity requirements.

## Standardisation

- Standardize data, methods of measurement, project documentation and processes and qualifications to reduce transaction costs and enable large-scale financing.

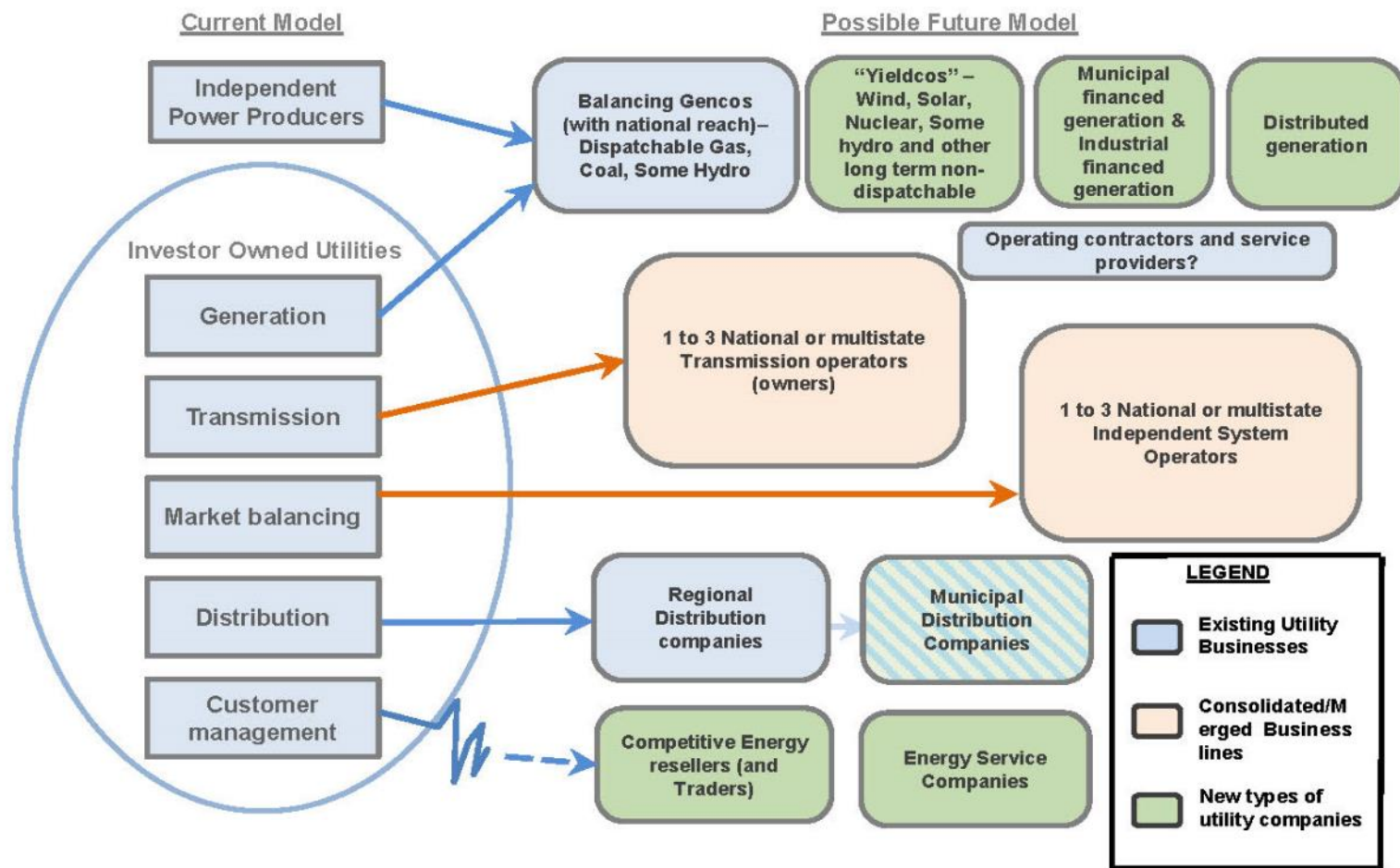
## Technical assistance for project development

- to create a pipeline of projects, which reduces market risk to developers and manufacturers.

## Supportive national policy frameworks

- Improve the investment environment for clean energy.

# Public finance: reshape current power sector policies and institutions that unfairly favor incumbent technologies



Source: Nelson, D., *Roadmap to a Low Carbon Electricity System in the U.S. and Europe*. Climate Policy Initiative, June 2014.



# Public financing: Public resources should go where capital markets don't

