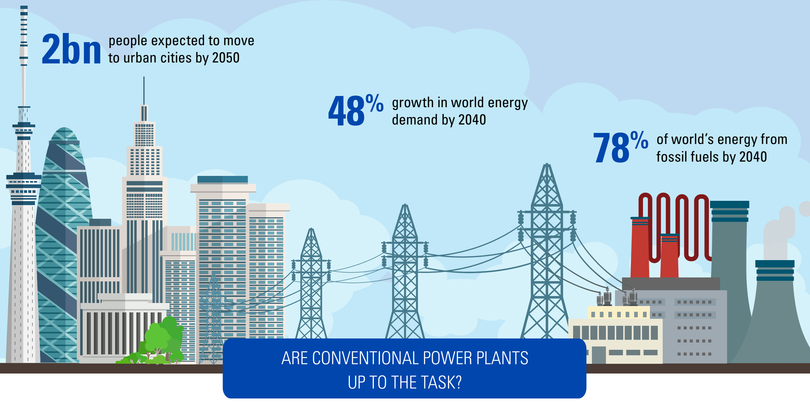
POWERING THROUGH

ARE AGEING POWER PLANTS READY FOR THE COMING SURGE IN WORLD ENERGY DEMANDS?

Global energy consumption is expected to boom in tandem with rapid urbanisation worldwide. Conventional power plants are expected to be the main energy providers. Alarmingly, many power plants may not be efficient enough to meet the coming surge in energy demand.



2bn people expected to move to urban cities by 2050

48% growth in world energy demand by 2040

78% of world's energy from fossil fuels by 2040

ARE CONVENTIONAL POWER PLANTS UP TO THE TASK?

Power plants and infrastructure in developing and developed countries alike are facing ageing and efficiency-related issues:

1.6% - 2.5%
decrease in efficiency levels of conventional power plants in Europe between 2005 and 2014

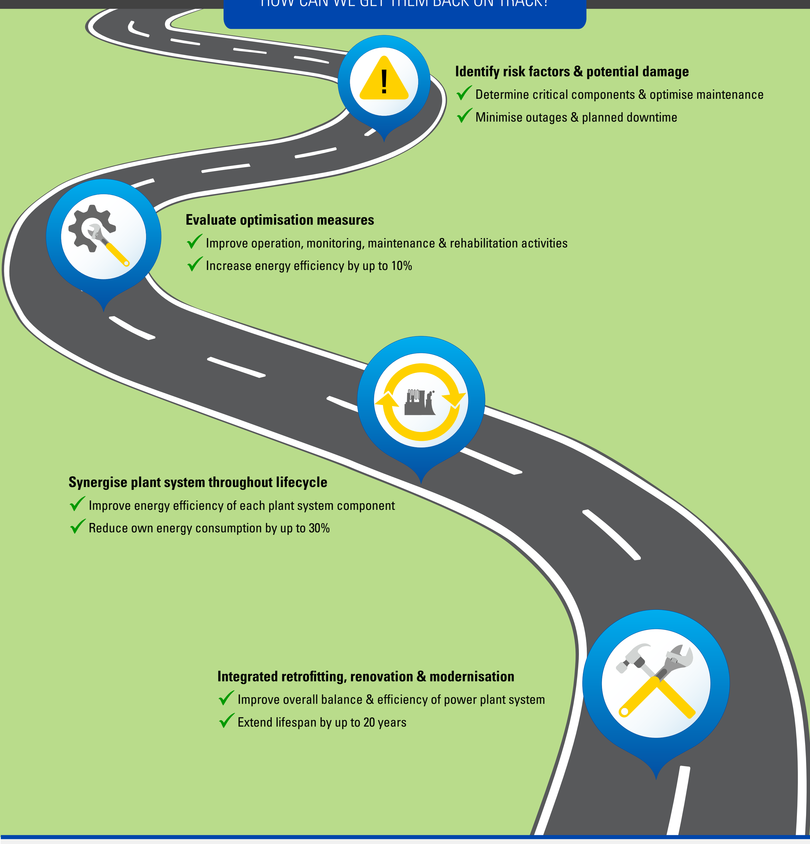
45%
of globally-installed coal-fired power plants in 2012 were over 20 years old

38%
less lifespan for coal-fired power plants in developing countries, like India, compared to developed nations

51%
of USA's electricity generating capacity built before 1980

65%
of coal-fired power stations in Australia will be over 40 years old by 2030

HOW CAN WE GET THEM BACK ON TRACK?



Identify risk factors & potential damage
- ✓ Determine critical components & optimise maintenance
- ✓ Minimise outages & planned downtime

Evaluate optimisation measures
- ✓ Improve operation, monitoring, maintenance & rehabilitation activities
- ✓ Increase energy efficiency by up to 10%

Synergise plant system throughout lifecycle
- ✓ Improve energy efficiency of each plant system component
- ✓ Reduce own energy consumption by up to 30%

Integrated retrofitting, renovation & modernisation
- ✓ Improve overall balance & efficiency of power plant system
- ✓ Extend lifespan by up to 20 years

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