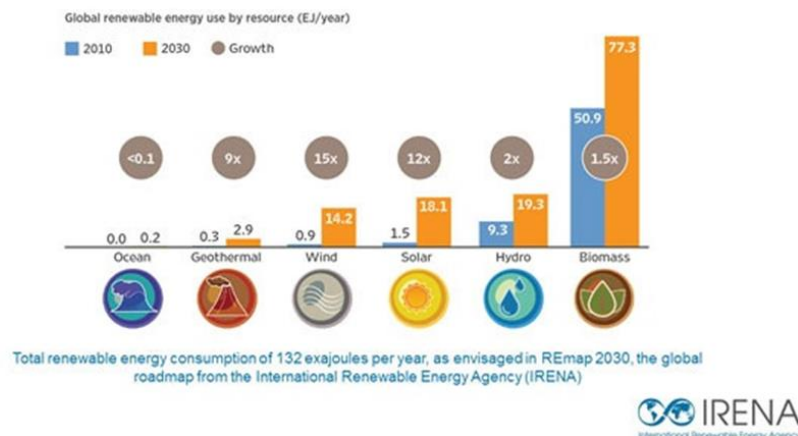


## IRENA: 12 Times More Solar Needed To Avoid ‘Climate Catastrophe’

Solar deployment needs to increase 12 times over by 2030 to avoid “*climate catastrophe*”, a report by the International Renewable Energy Agency (IRENA) has warned. Launched in New York last week, the report, ‘REmap 2030’, aims to show a 36% share of renewables in the energy mix by 2030 is feasible, affordable and will mitigate climate change risks – keeping carbon pollution below 450ppm to keep within a ‘safe’ 2 degrees Celsius rise in global temperatures.

### Scaling up all renewable energy sources



Based on the IRENA model, wind energy needs to increase the most, by a factor of 15, and solar second, by a factor of 12. Geothermal needs to grow nine times over, hydro to double, biomass by a factor of 1.5 and tidal generation to increase by less than 0.1.

IRENA has calculated the switch to renewables also provides US\$740 billion of savings each year on environmental costs from burning fossil fuels – cancelling out the investments costs required to reach 36% renewables.

Out of the US\$750 billion, US\$200 billion could be saved in health costs, while 900,000 clean energy jobs would be created, IRENA said. The REmap show by 2030 there would be a 15% decline in oil and natural gas, and 26% decline in coal, helping countries that import fossil fuels to be energy secure and to reduce air pollution. The REmap is based on the energy demand and consumption of 26 countries, or 75% of global energy consumption.

The study focuses on the “*financing, political will, skills, and the role of planning*” needed to increase renewables – as well as available technology. Technologies are already available today to exceed 30% renewable energy generation by 2030. REmap is the first study of worldwide renewable energy potential “*assembled from the bottom up*”, IRENA.

Dolf Gielen, director of IRENA’s innovation and technology centre said, the world is “*not on that path*” to increasing renewables yet. “*All governments need to step up their efforts. We need to act now,*” said Gielen. **The key to deploying enough renewables quick enough said Gielen, is to focus on five points: “*planning realistic but ambitious transition pathways; creating enabling business environments; managing knowledge of technology options and their deployment; ensuring smooth integration of renewables into the existing infrastructure; and unleashing innovation.*”**

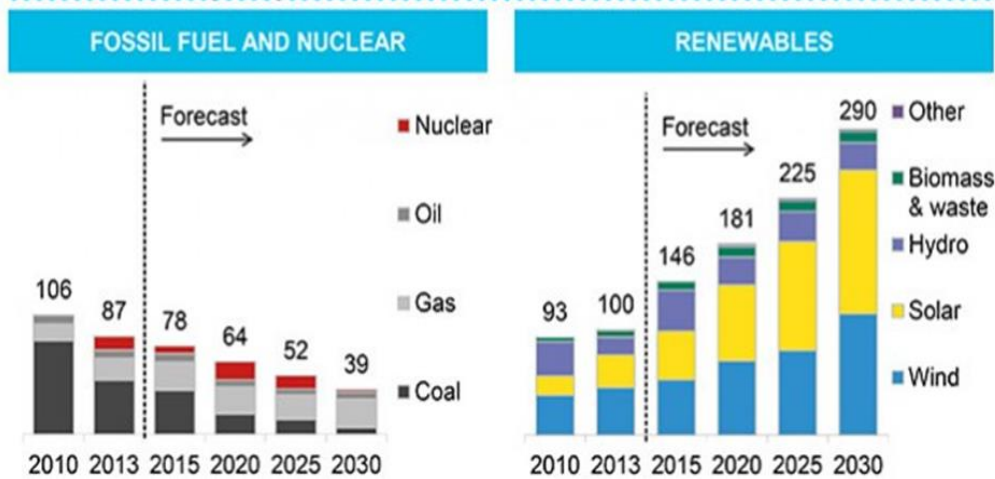
Adnan Amin, director-general of IRENA, said when costs such as environmental clean-ups and health care compensation are factored in, “*renewable energy can help avert catastrophic climate change and save the world money. The central policy question is this: What energy sources do we want to invest in?*” said Amin. Based on existing technologies the REmap 2030 echoes the latest IPCC report in showing an affordable transition to renewables with benefits that “*go well beyond the positive climate impact*”, said Amin.

**The IPCC draft recommendation also said renewable energy has the potential to more than meet global energy demand**, as renewables are now the third largest contributor to global energy supply – just behind coal and gas – with a good chance of being the second largest contributor by 2020. **Since 2005 solar has increased deployment by a factor of 25, the report states.**

## US\$550 Billion Renewables Investment Needed Annually To Avert ‘Catastrophic’ Climate Change

US\$550 billion of investment is needed every year till 2030 to secure the transition to sustainable energy and to keep below a 2°C rise in global temperatures, according to Adnan Amin, director general of the International Renewable Energy Agency (IRENA). “We need to double the level of investment that we are seeing today to significantly scale-up renewable energy and reduce carbon emissions to an acceptable level,” said Amin at the Renewable Energy Financing Forum's (REFF) Wall Street event in New York last week.

### GLOBAL POWER GENERATION CAPACITY ADDITIONS 2010 – 2030 (GW)



Investment would also increase energy efficiency and see renewables account for 36% of the globe’s energy, he said. “This level of investment together with energy efficiency measures will help mitigate the catastrophic impact of climate change,” said Amin.

**IRENA said most of the investment is to go towards solar, wind and hydropower, creating nearly a million jobs by 2030.**

“The emerging challenge we are facing today is financing renewable energy technologies in the end use sector. This is crucial to make the renewable energy transition complete,” said Amin. The investment would also save US\$80-200 billion a year in health related costs, according to IRENA’s estimates.

At the beginning of June IRENA released its Renewable Energy Map (RE map) stating global solar deployment needs to increase by a factor of 12 and calculated the switch to renewables will also provide US\$740 billion of savings each year on environmental costs from burning fossil fuels – cancelling out the investments costs required to reach 36% renewables.

On the release of the Remap, Dolf Gielen, director of IRENA’s innovation and technology centre said, the world is “not on that path” to increasing renewables yet. “All governments need to step up their efforts. We need to act now,” said Gielen.

**The latest IPCC report states: “Additional investments required in the energy supply sector by 2050 are estimated to be US\$190 billion to US\$900 billion a year to limit the temperature increase below 2°C.”**

The IPCC report also cited examples of renewables employment from Germany and Spain as “noteworthy where 500,000 to 600,000 people could be employed in the renewable energy supply sector in each country by 2030”.

Already this year, the European Investment Bank is to provide US\$1 billion to support renewable energy development, US\$219 million has been invested in the Danish Climate Investment Fund (DCIF) from various pension funds, and US\$8.4 billion is to be invested in renewables from Norway, via its oil-generated sovereign wealth fund, Government Pension Fund Global (GPF).