



#### **Renewables: The True Costs**

## Renewable Power Generation Costs in 2014

**Michael Taylor** 

#### Renewables cost analysis at IRENA





Fills an important gap in knowledge

World-class database of costs

Cutting edge analysis, not just data

More products and analysis coming

Costing Alliance deepens engagement





The relentless improvement in competiveness continues

Renewables competing head-to-head with fossil fuels

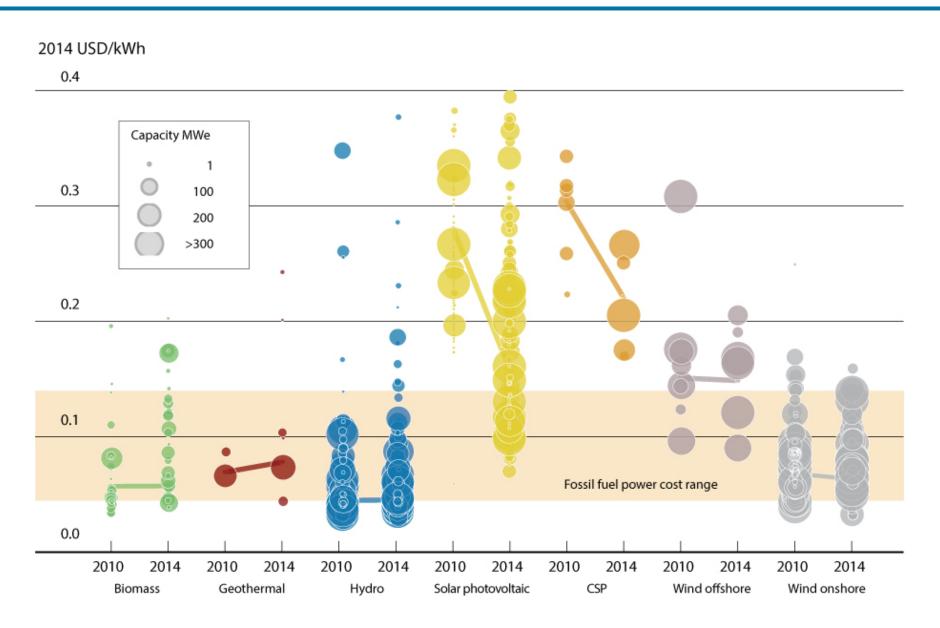
Integrating variable renewables doesn't change the conclusions



Future cost reductions will be more challenging, policy driven

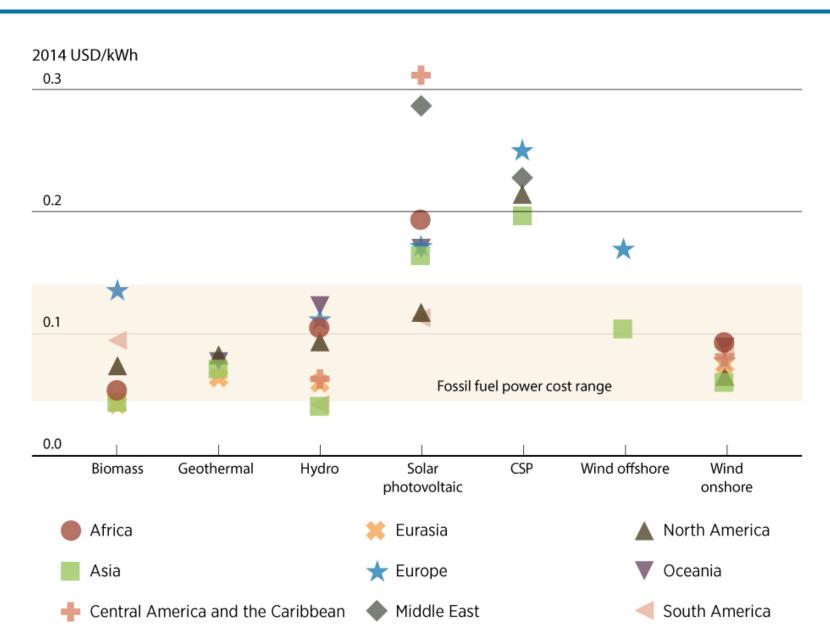
## Renewables competitiveness continues to improve





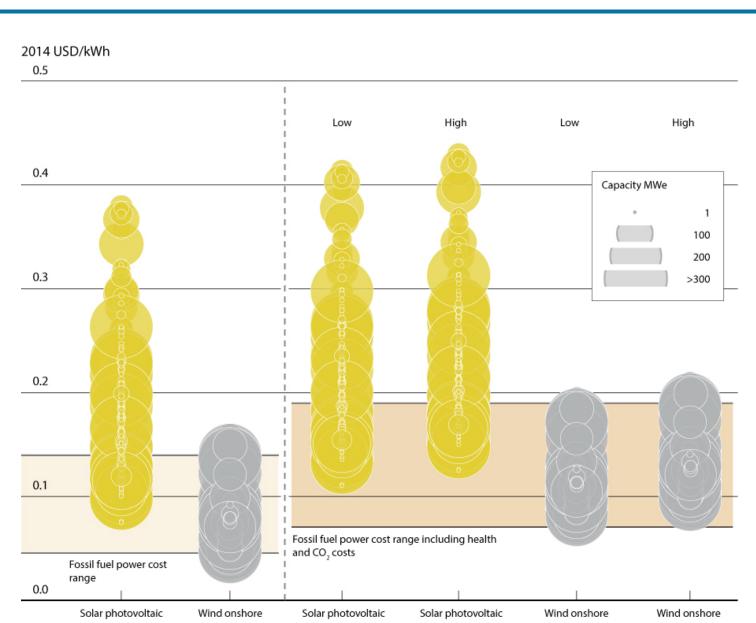
#### Competing head-to-head with fossil fuels





#### High levels of variable renewables are competitive





#### Cost reduction drivers are changing





Low equipment costs change the dynamics

Balance of project costs, O&M, financing will grow in importance

In some cases more challenging to unlock

But cost differentials are large and the policy levers exist "I'd put my money on the sun and solar energy. What a source of power! I hope we don't have to wait until oil and coal run out before we tackle that."

Thomas Edison, 1931

# RENEWABLES ARE COMPETITIVE



## THE FUTURE IS HERE TODAY

www.irena.org/costs