

# The role of water storage

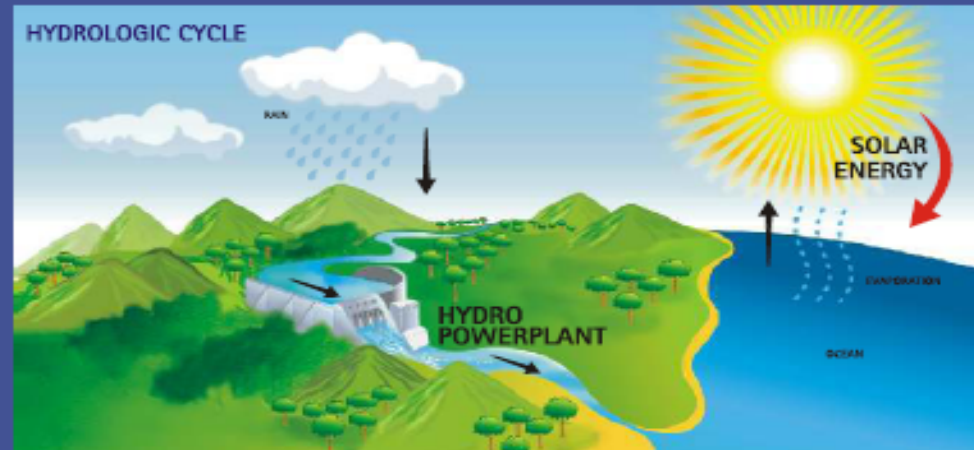
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Federal University of Rio de Janeiro  
Brazil

Climate change adaptation and mitigation  
Promoting coherence

Workshop of the 2013 Stockholm Water Week

**WE HAVE BEEN PRODUCING ELECTRICITY FROM SOLAR ENERGY FOR MORE THAN A CENTURY**



Light is a power company serving over 4 million consumers in Rio de Janeiro, with an installed capacity of 850 MW and annual gross revenues of US\$ 4.9 billion. We are committed to using renewable sources of energy, such as hydropower. We are a Brazilian company that was founded by Canadian entrepreneurs more than a century ago and are proud of the fact we are respected and admired equally by consumers and shareholders alike.

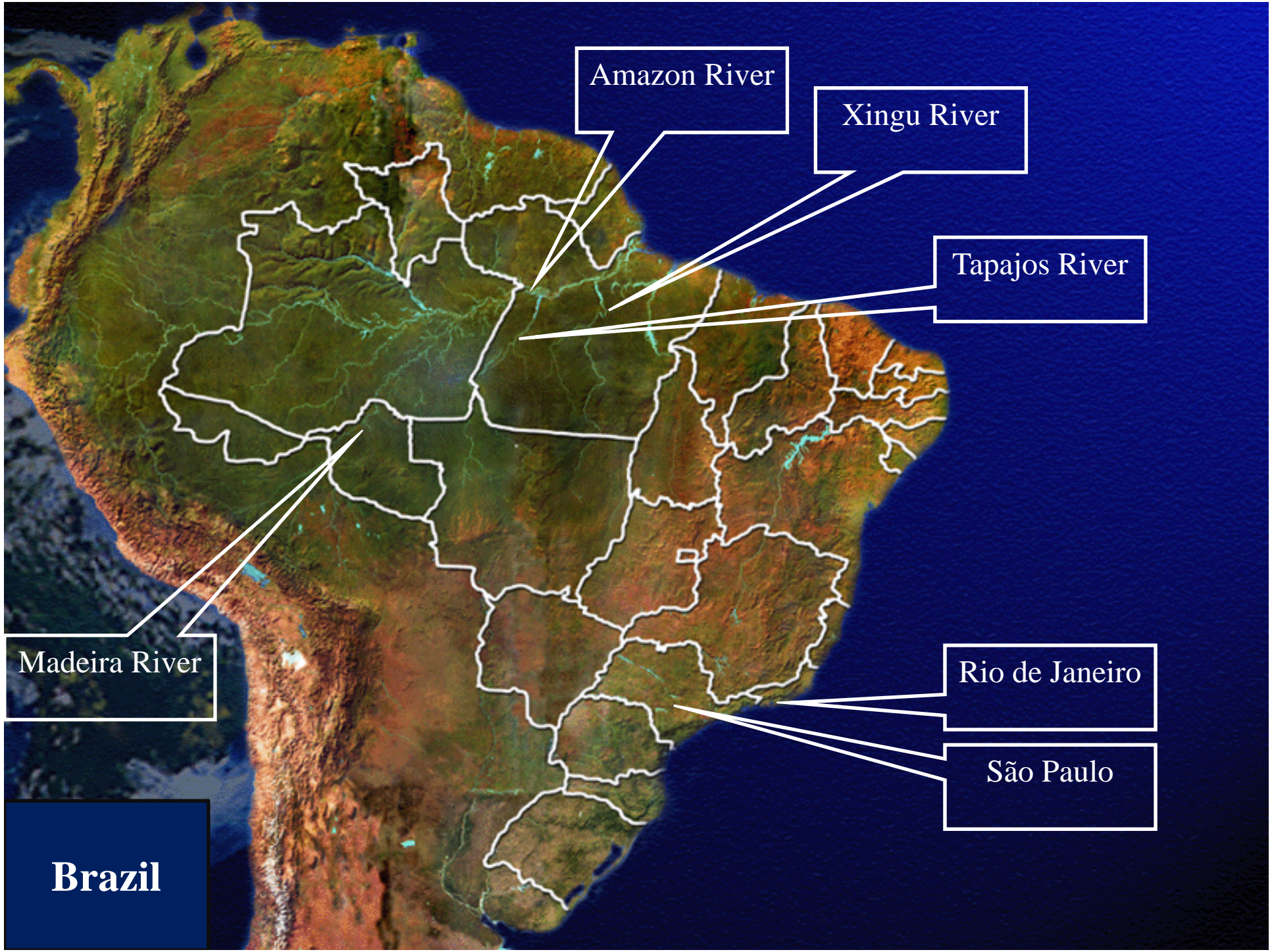
Light Esco and Light Com are two of the companies that belong to the group and provide customized solutions to meet the energy needs of our clients, including energy efficiency projects and consultant services. Both companies trade electricity from conventional and renewable sources, such as hydropower, windpower and biopower plants.



# Why wind power is the least expensive source of electricity in Brazil?

Because...

- No need for backup power plants
- More than 80% of the electric energy is produced by hydro plants. Their reservoirs “store” the energy produced by intermittent or seasonal sources, such as water, wind, biomass and solar



Amazon River

Xingu River

Tapajos River

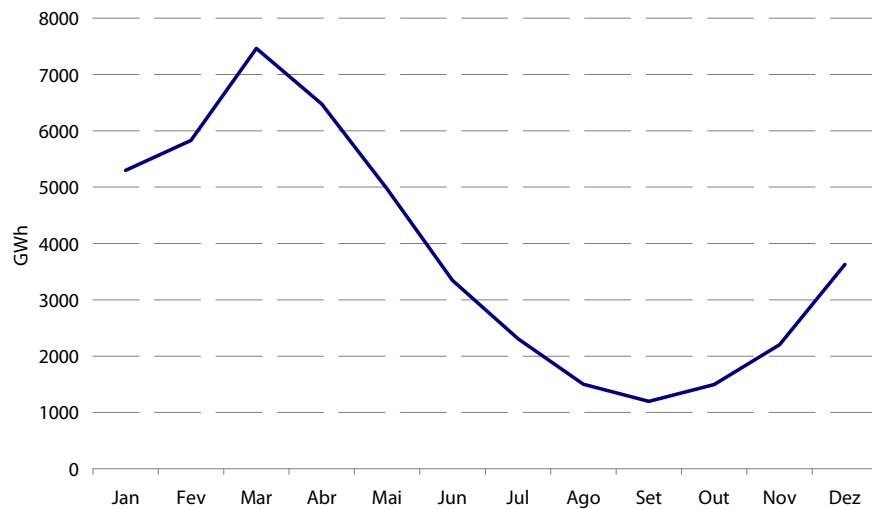
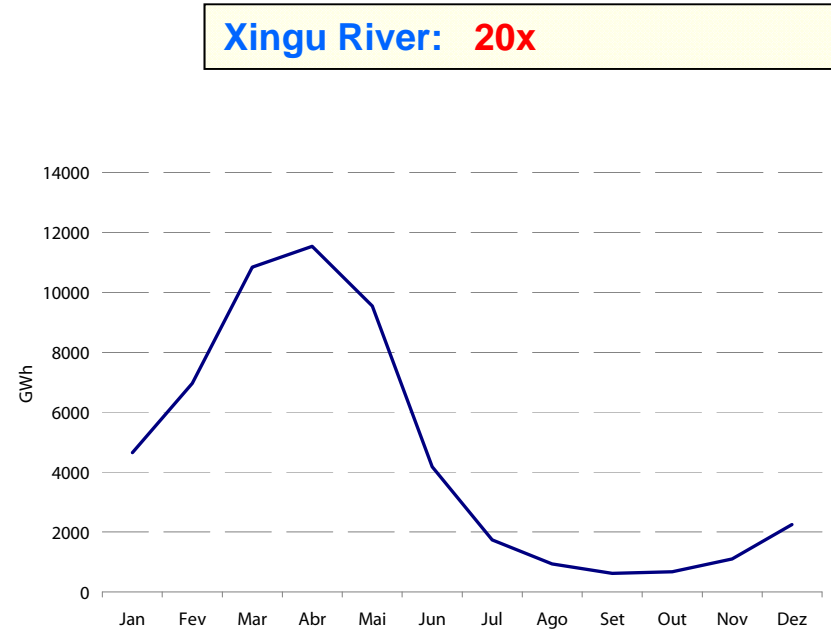
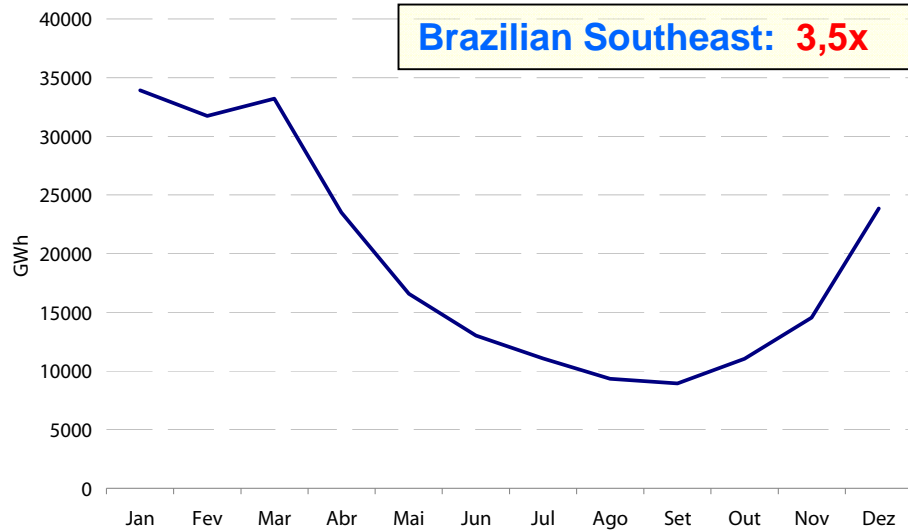
Madeira River

Rio de Janeiro

São Paulo

**Brazil**

# Seasonal streamflow variability



# Storage Yield Relationship for Annual Flows

