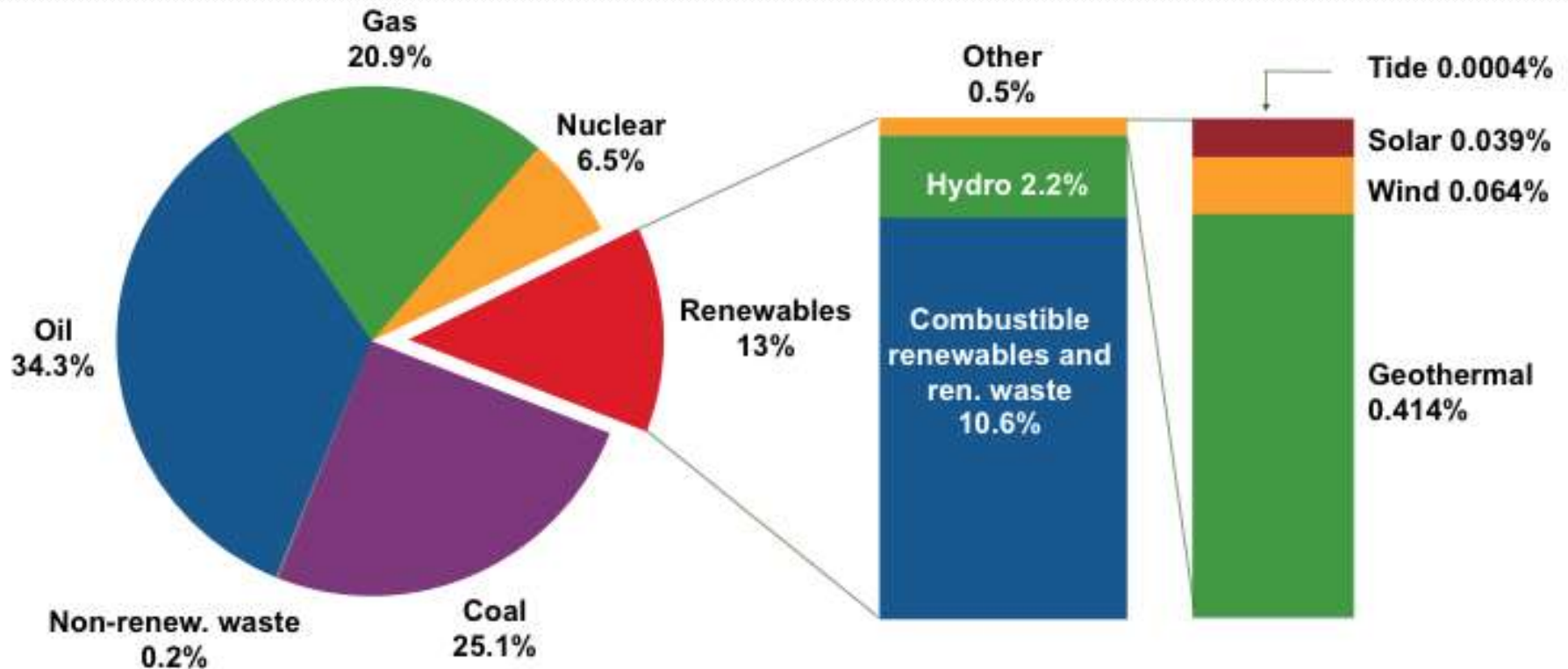


Calabash Caye Solar / Wind Power System



By: Marco Valle - ICT Director University of Belize

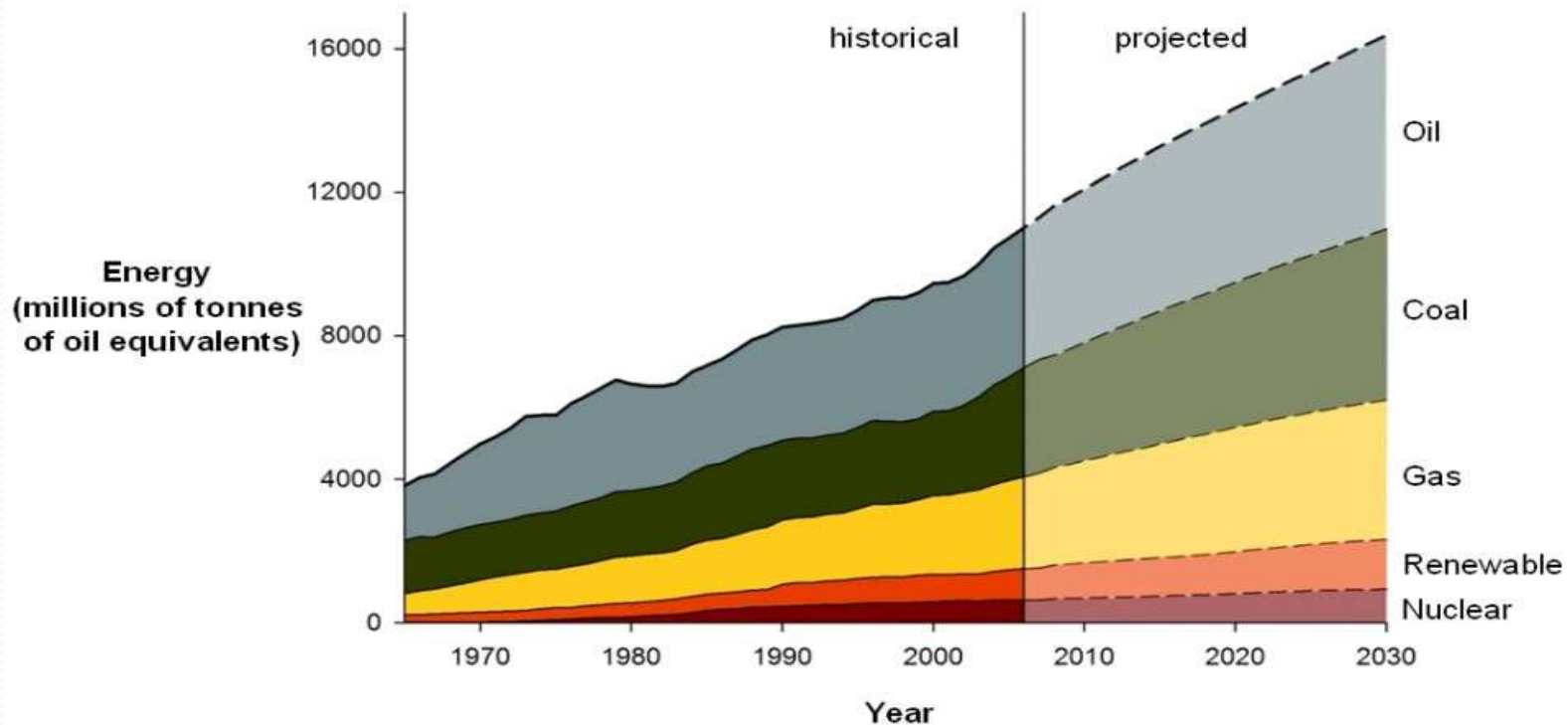
The Big Picture



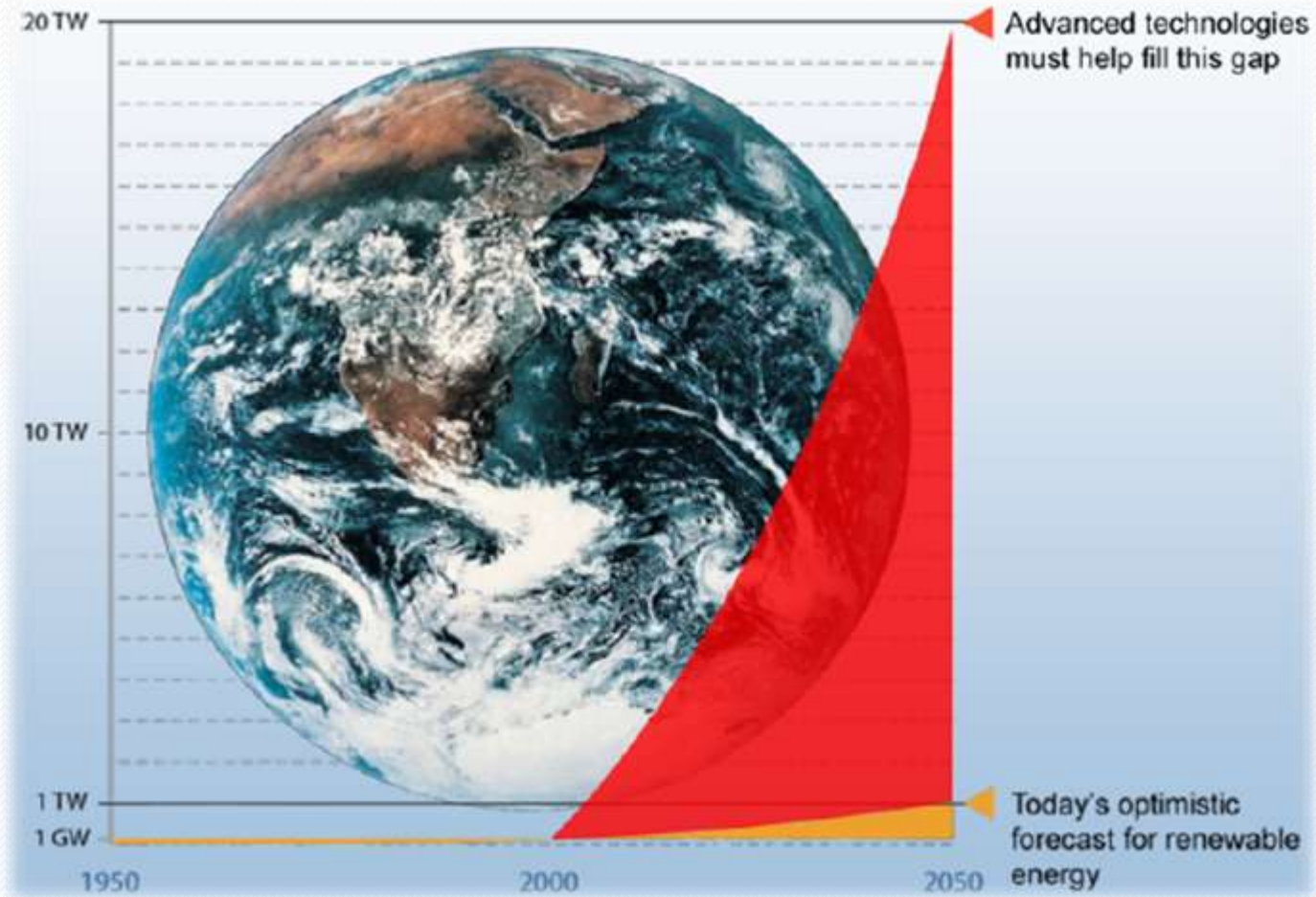
Source: IEA, 2007

Forecast Energy Trends

Energy Demand by Fuel Type



The Challenge



Left to Current Trends



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Calabash Fuel For Power Data

- 2007 = 7.3gal/day (~24,800Kg CO₂/yr)
- 2008 = 0.7gal/day (~2,300Kg CO₂/yr)
- 2009 = 0.5gal/day (~1,600Kg CO₂/yr)
- 2010 = .25gal/day (~800Kg CO₂/yr)

Solar / Wind System Specs

- 3.8K Photovoltaic Array
+ 1KW Wind Turbine
- Average Daily Energy
Production = 18KWh
- Average Monthly Energy
Production = 575KWh



No Contribution is Too SMALL

Thanks to the efforts and contributions of organizations such as AEA, whom have:

- ✓ Proven the feasibility and functionality in the use of renewable energy components in the region
- ✓ Helped raise awareness to the issue at hand and stimulated others to join in the cause

Case in Point

The government of Japan (through JICA) has pledged a 350KWH solar power plant to the Government of Belize (GOB), to be housed and maintained by the University of Belize in conjunction with GOB, as an introductory example of the first Grid-tied system in Belize.

Some Bad News

Last month (October-2010), Belize took a direct hit by hurricane Richard, Calabash Caye was one of those worst affected in the region



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Calabash After Richard Images



Lessons Learned

- Always insure your assets
- Always implement a preventative maintenance plan
- Educate ground crew with regards to project
- Maintain good log records
- Pass-on the knowledge

Thanks For Your Attention

University of Belize



Education Empowers a Nation