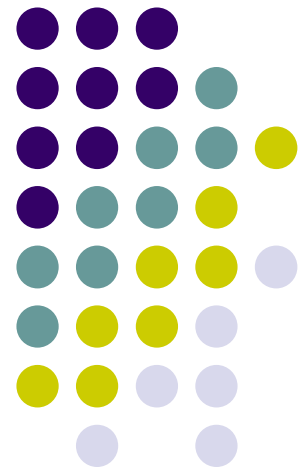
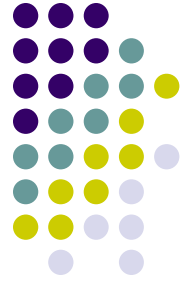


Clean Energy in Singapore Polytechnic

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School of EEE
Singapore Polytechnic





1. INTRODUCTION

Energy is the ability to do work and to make things happen. It is life's driving force because it allows us to accomplish our everyday tasks. Without it we would not be able to drive our cars, turn on our lights, power our factories, heat our food, trade with other countries and expand our economy.

Most of conversional energy sources are not sustainable. To make our life continue, we need clean energy that can maintain for a long, long time.

Main Energy Resources We Are Using



➡ Natural gas.

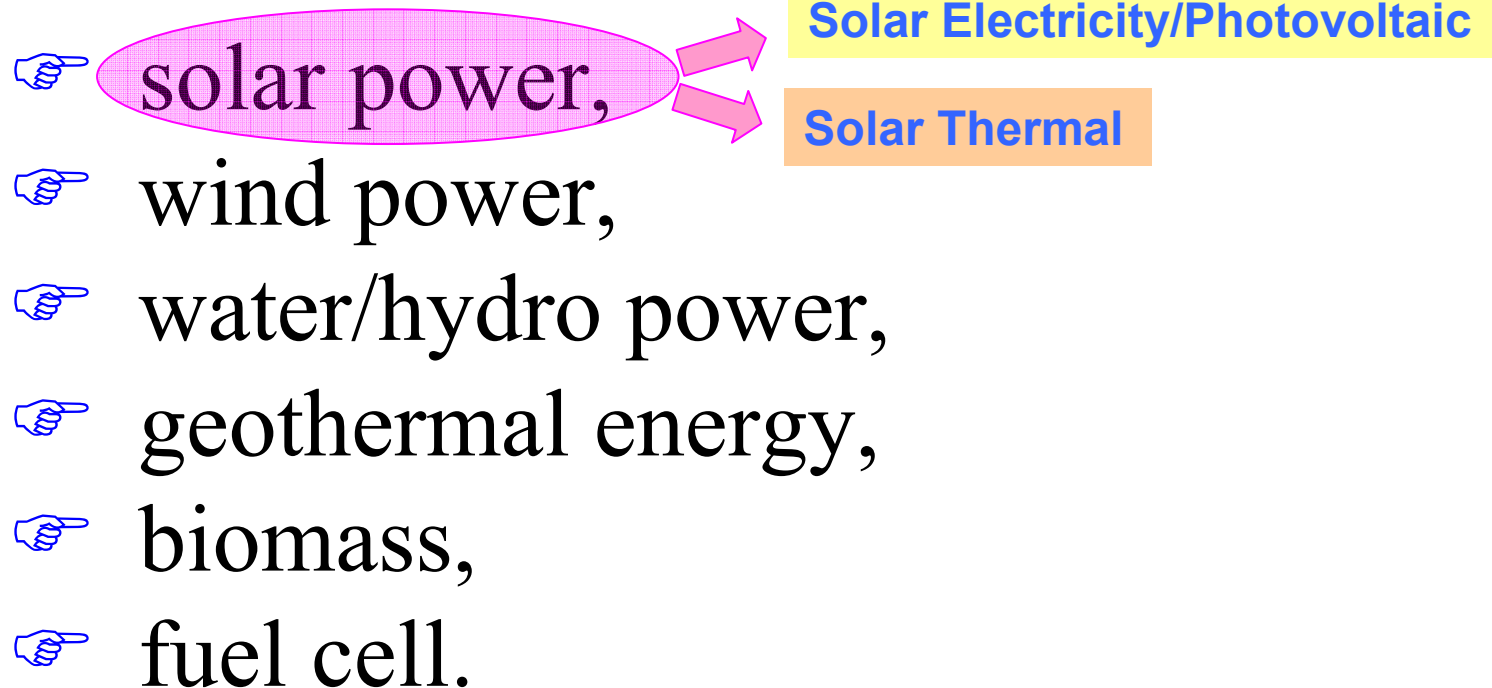
➡ Oil.

➡ Coal.

➡ Nuclear.

➡ Hydro.

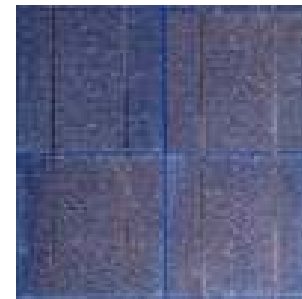
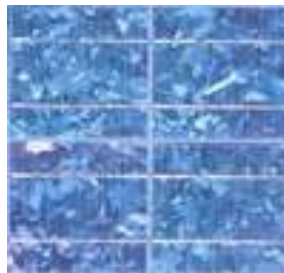
Clean Energy Resources



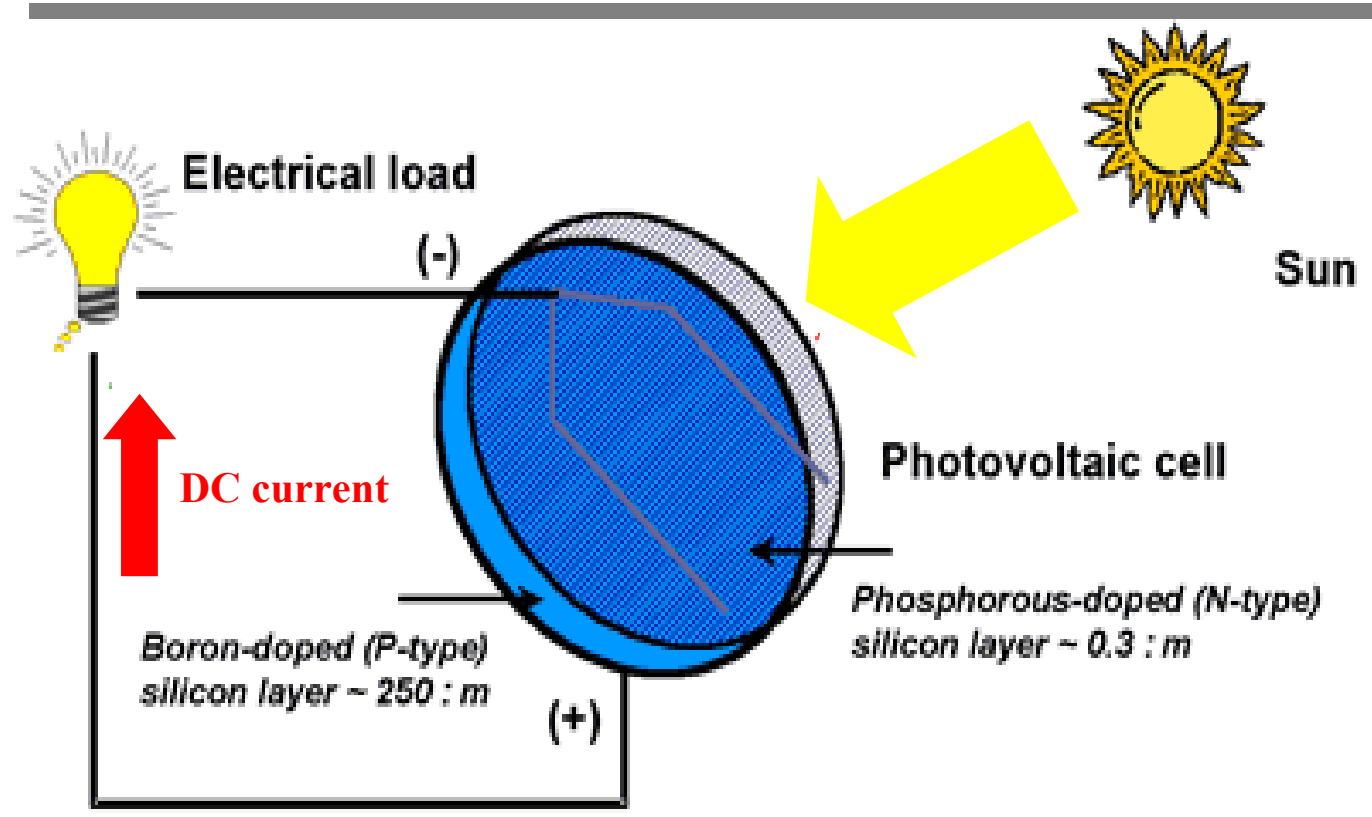
The Device to Convert Sunlight to Electricity



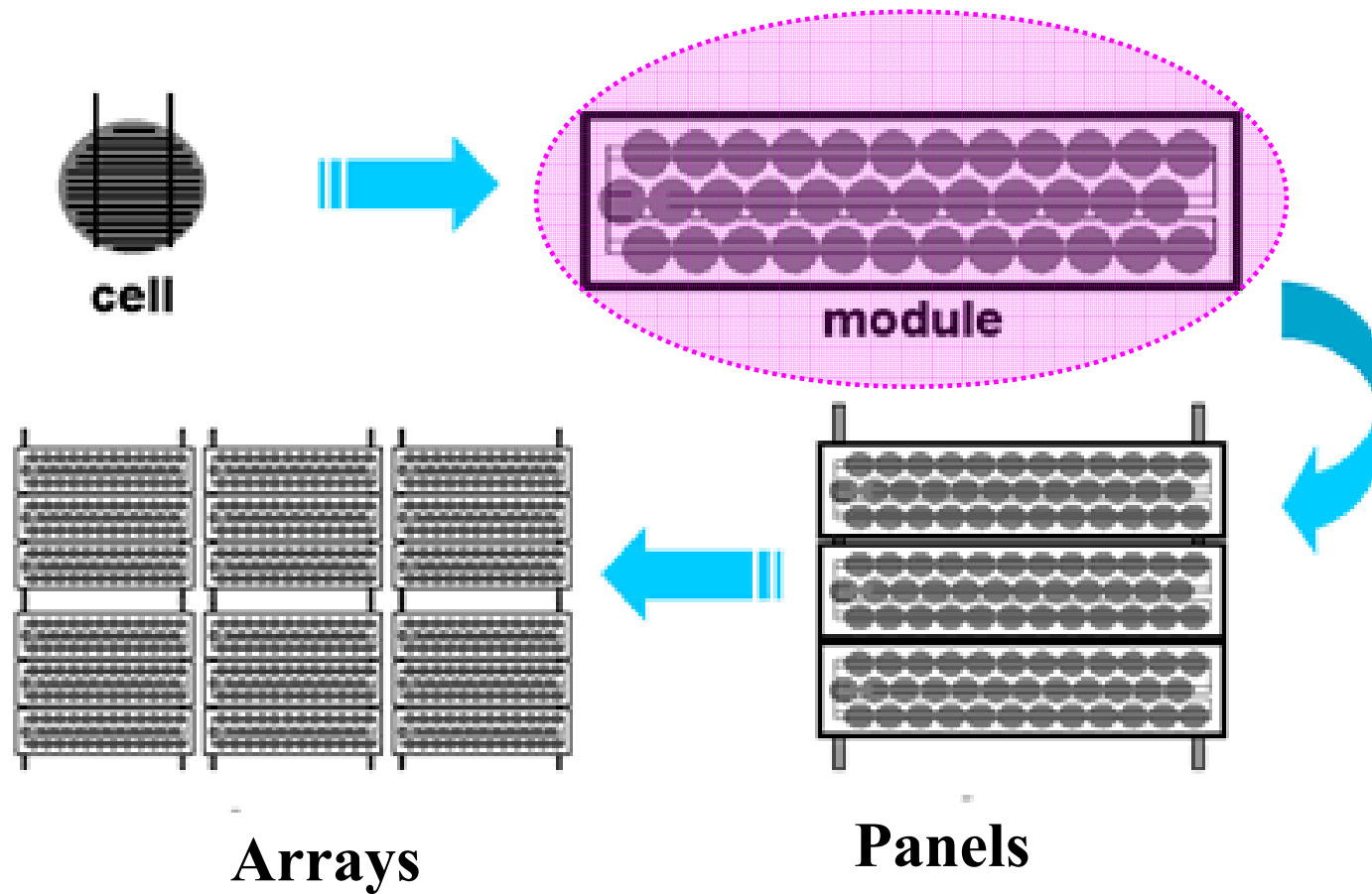
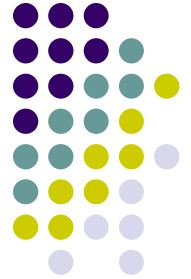
The basic component used to convert solar energy into electricity is commonly known as “**solar cells**”.



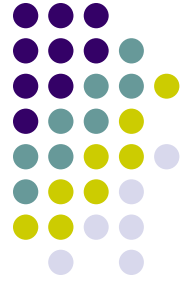
Working of A Solar Cell



Applications of Solar Cells



Solar Systems in Singapore Polytechnic



Singapore first Solar system installed in Singapore Polytechnic in 1993

Singapore first large solar system installed in Singapore Polytechnic in 1996



The Solar-wind-hybrid System



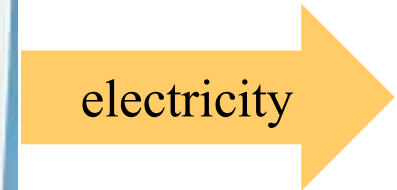
Solar Panels



**wind
generator**



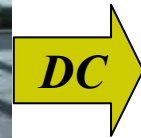
**Energy storage and
management**



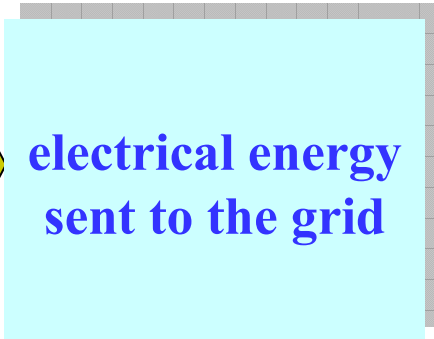
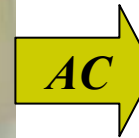
A Large Grid-connected Solar System



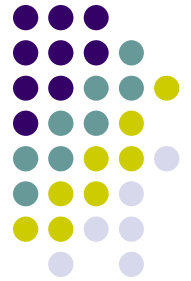
PV panels



Energy conversion



The First Solar Car in Singapore



Solar Powered 6-seater Golf Car

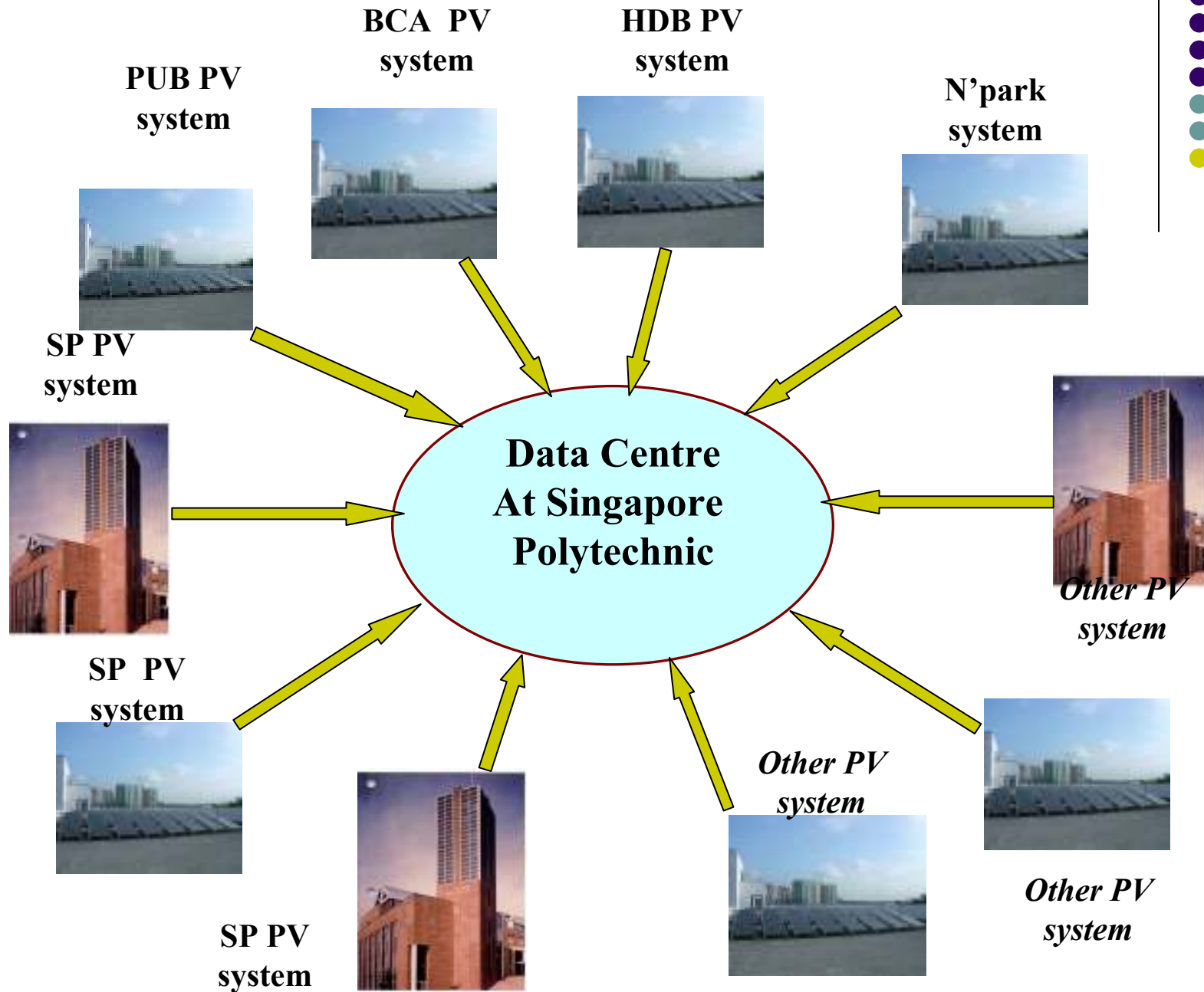


Ongoing Clean Energy Projects in SP



*46kWp Solar
systems are under
installation*





Come to A Small Application: Solar Powered Radio

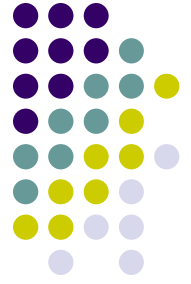


Solar PV cell

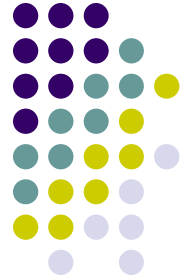
Radio



SP Education in Clean Energy



- 🎧 **Singapore Polytechnic launched the first Diploma Course in Clean Energy Diploma in Singapore in April, 2008 to encourage more young people to be involved in clean energy.**
- 🎧 **The course will train the students in clean energy area such as solar energy, wind energy, fuel cell, biomass etc.**



THANK YOU FOR YOUR ATTENTION