

Wind Turbine Electricity Generation

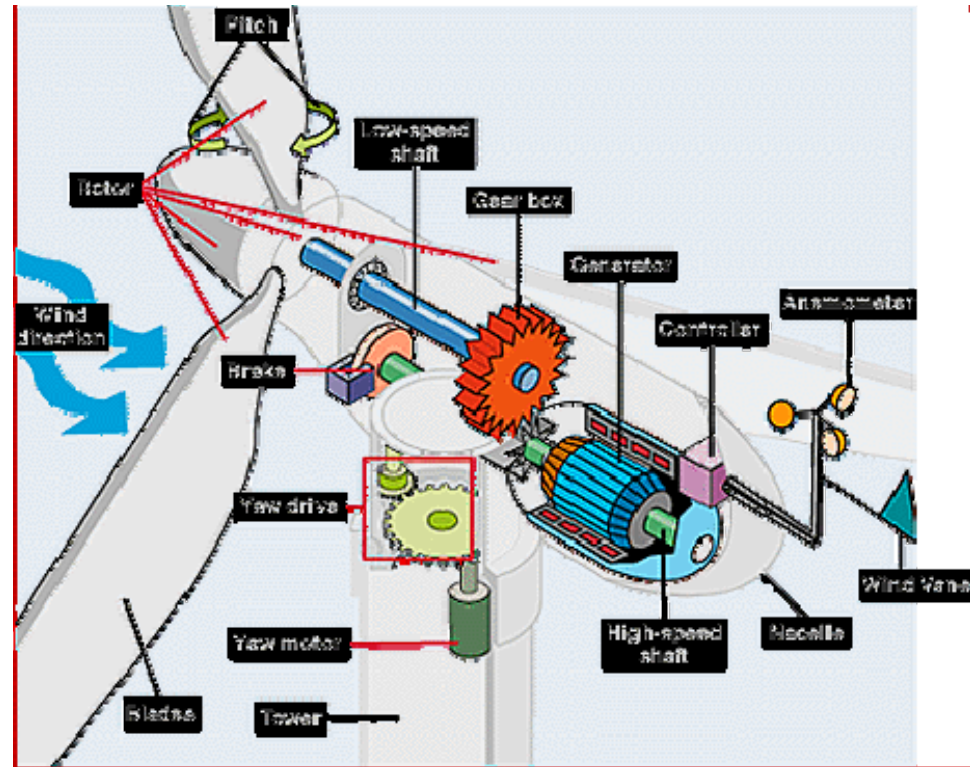
A. Introduction

PRIMARY MISSION OF
TURBINE IS TO GENERATE
ELECTRICITY

EVERYTHING DISCUSSED TO
THIS POINT IS DESIGNED
TO SAFELY & EFFICIENTLY
WIND ENERGY (K.E.)
ROTATIONAL ENERGY (K.E.)

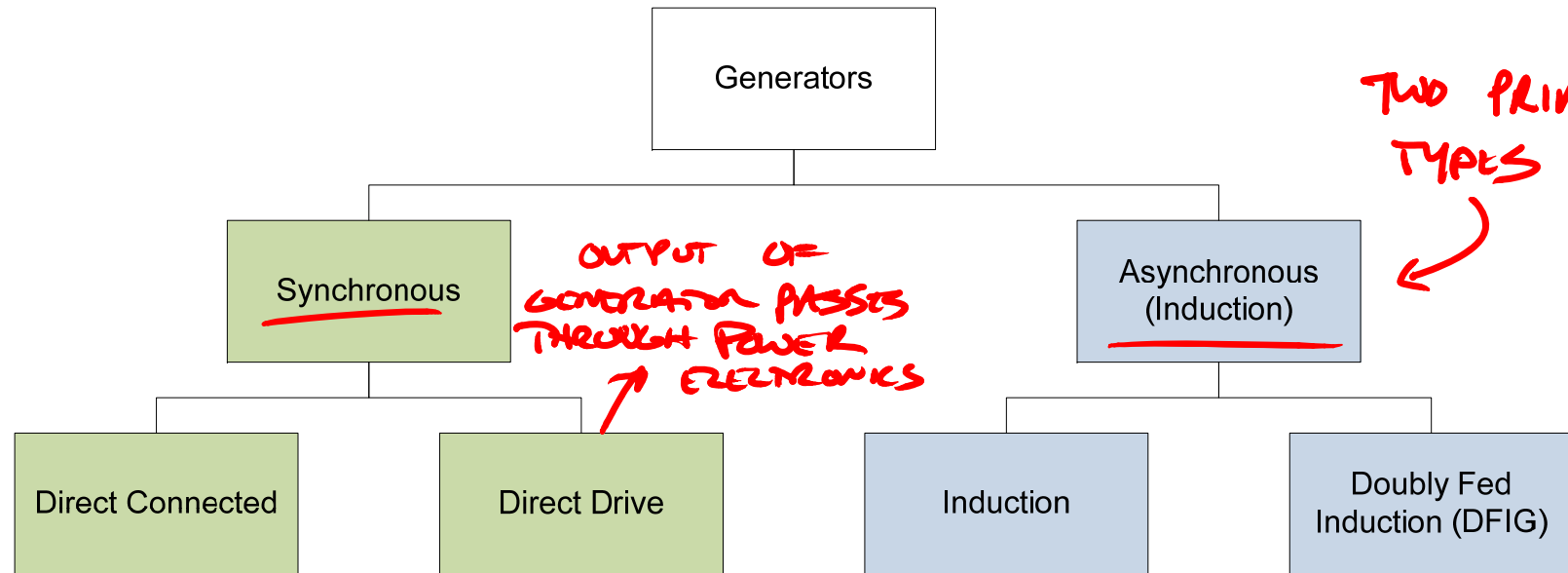
NOW WE WANT TO CONVERT
ROTATIONAL ENERGY INTO SOMETHING
USEFUL

ROTATIONAL ENERGY (K.E.)
ELECTRICITY (P.E.) } SYSTEM THAT ACCOMPLISHES
THIS IS THE GENERATION



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A. Introduction



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OUTPUT OF GENERATOR
IS DIRECTLY CONVERTED
TO GRID

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OUTPUT OF STATOR
CONNECT DIRECTLY
GRID

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SIMILAR TO
INDUCTION MOTOR
BUT ROTOR ALSO
CONNECTED THROUGH
POWER ELECTRONICS

OBVIOUSLY THERE ARE OTHER
ELECTRICAL SYSTEMS INVOLVED
IN WIND TURBINES

- TRANSFORMERS
- GRID CONNECTION
- YAW & PITCH MOTORS
- LIGHTNING PROTECTION
- STORAGE BATTERIES CAPACITORS