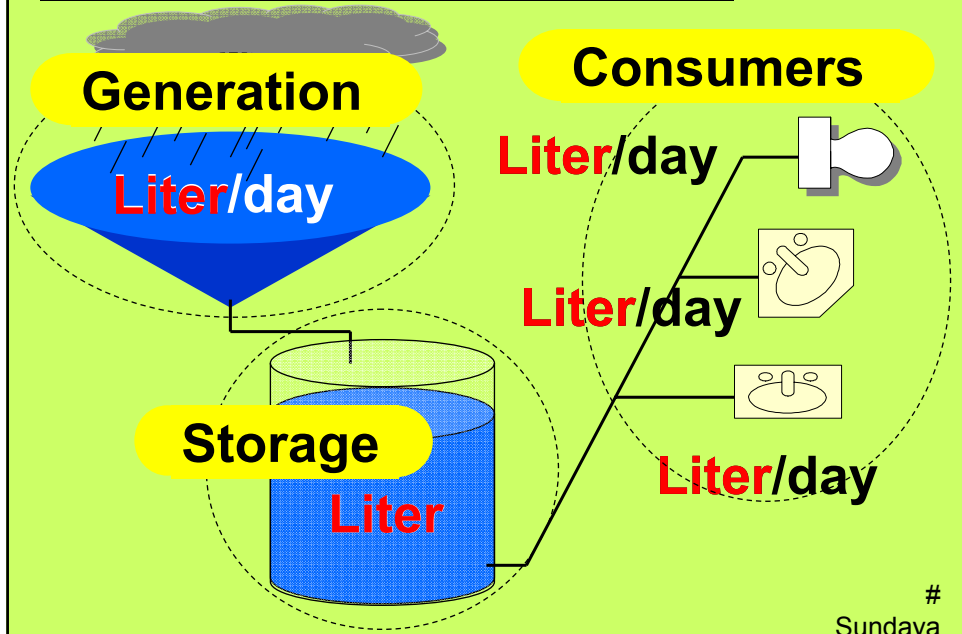
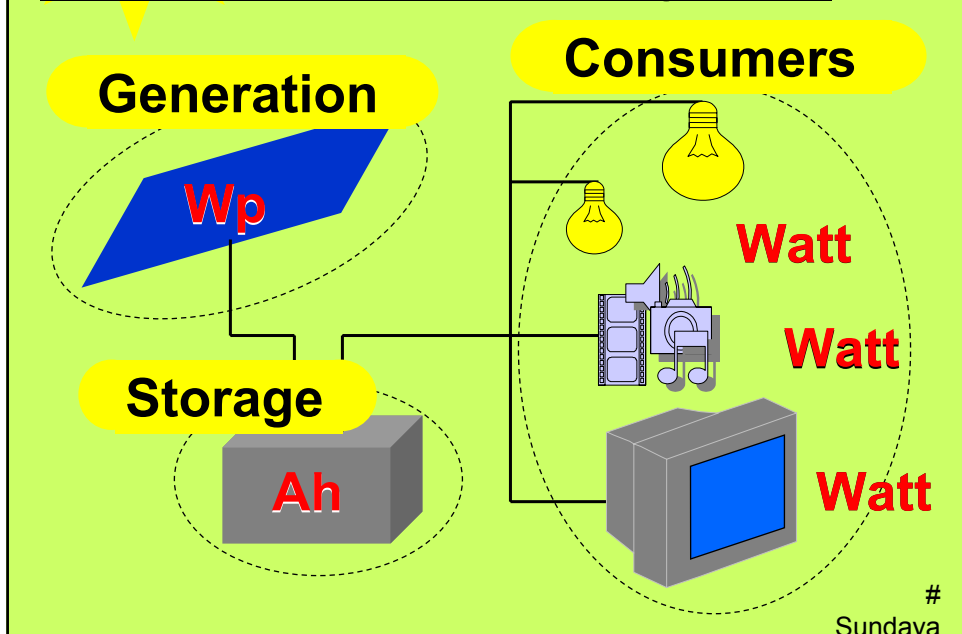


The Rain Collector System:



The Stand Alone Solar System:





Summary:

	Water System	Solar System
Generation	Liter/day	Wp/day
Storage	Liter	Wh
Consumption	Liter/day	Watt day

How can we create Unity between Generation, Storage and Consumption in a solar System?

Conversion of all units to **Watt-hour !!!**

Sundava



Question:

Which unit has a relation with time?

Watt or Watt-hour ?

Sundava

Measurement Units:

Commodities	Water	Gas	Electricity
In what Unit do we express the quantity or size?	Liter m^3	Kg m^3	Watt
In What way do we express consumption ?	Liter/day m^3/day	Kg/day m^3/day	Watt/hour kW/hour
What do we pay each end of the month?	m^3	m^3	kWh

Question: Is this table correct?

Reality: 99% of public will say this table is correct

#

Sundava

Measurement Units:

Commodities	Water	Gas	Electricity
In what Unit do we express the quantity or size?	Liter m^3	Kg m^3	Watt
In What way do we express consumption ?	Liter/day m^3/day	Kg/day m^3/day	Watt*hour
What do we pay each end of the month?	m^3	m^3	kWh

Problem: Watt-hour is understood as Watt per Hour and not Watt multiplied with an hour !!!

Therefore People don't realize that Watt and Watt*hour are reversed in above table

#


Sundava

Measurement Units:

Commodities	Water	Gas	Electricity
In what Unit do we express the quantity or size?	Liter m^3	Kg m^3	Watt
In What way do we express consumption ?	Liter/day m^3/day	Kg/day m^3/day	Watt-hour
What do we pay each end of the month?	m^3	m^3	kWh

Measurement Units:

	Electricity
What is the scientific definition of Watt	Watt \rightarrow $\frac{\text{Joule}}{\text{second}}$
What is the scientific definition of Wh	Watt-hour


 $\frac{\text{Joule}}{\text{second}} \times 3,600 \text{ second}$

Measurement Units:

	Electricity
What is the scientific definition of Watt	Watt → $\frac{\text{Joule}}{\text{second}}$
What is the scientific definition of Wh	Watt-hour →
	↓
	$\frac{\text{Joule}}{\text{second}} \times 3,600$

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Measurement Units:

Commodities	Water	Gas	Electricity
What is the scientific definition of Watt?	Liter Watt	→ $\frac{\text{Kg}}{\text{m}^3}$	$\frac{\text{Joule}}{\text{second}}$
What is the scientific definition of Wh?	Liter/day Watt-hour	→ $\frac{\text{Kg/day}}{\text{m}^3/\text{day}}$	Joule
What do we pay each end of the month?	m^3	m^3	kJ

Now you can clearly see that Watt-hour has nothing to do with time and only the unit Watt has relation with time

Sundava

The Stand Alone Solar System:

Generat

A 9W lamp consumes
 $9 \text{ J/s} \times 3600 \text{ s} =$
 30 kJ / hour

4 Sunhours/ day
 $=$
 750 kJ / day

Storage

$70\text{Ah} \times 12\text{V}$
 \times
 3.6 kJ
 $=$
 3.000 kJ

mers

93Watt

60Watt

55Watt

750Watt

3700Ah

