



## Rainwater Harvesting –Outline of systems and costs



# POWERING THE FUTURE

Renewable Energy Solutions | Energy Saving Consultancy



# Why Sunergy Group?



Trust – Uncompromised Quality – Tested Contemporary Technology – Right First Time

# Rainwater Harvesting

- **Typical domestic uses are:**
- Garden irrigation
- Toilet flushing
- Car washing
- Laundry

## How Much Water Can I Collect?

- When you start to think about rainwater harvesting it's important to know what kind of rainfall you can expect and what you may be able to collect.
- The average annual rainfall for each region can be found at [Current Results](#) and this is a good starting point for finding out.
- Then you need to do the following in order to determine how much water you can collect:
  - Calculate the 'flat area' of the roof, which is usually the same as the footprint of the house below
  - Then multiply the rainfall by the roof area
  - Finally deduct 20% for evaporation and overflow will give us the figure we need

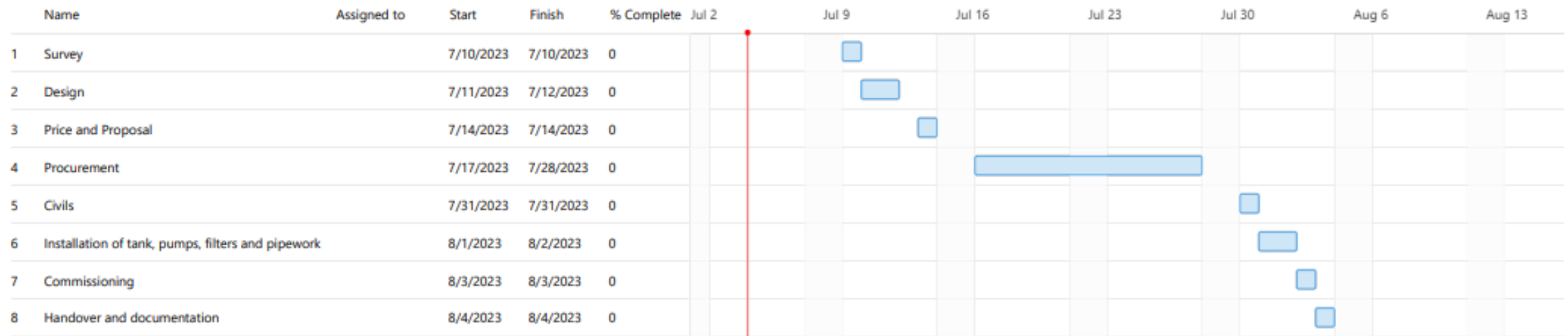
## So as an example:

- A house with a roof area of 100m<sup>2</sup>, near Basingstoke, which has a rainfall of 660mm per year, the calculation will be 100m<sup>2</sup> x 660mm x 0.8, which equates to **52,800 litres of potentially collectable rainwater each year.**



# Typical Project Timeline

## Village Hall, Hampshire



# Maintenance Of Rainwater Systems

- Gutters and downpipes:** Inspecting for leaks and blockages and a build-up of debris.
- Filter:** Checking and cleaning the filter, if required at least once a year.
- Storage tank:** Looking for leaks and a build-up of debris, and ensure the tank is stable and the cover is properly fitted.
- Pumps and pump control:** Checking for leaks and corrosion, whilst also looking at the gas charge.
- Back-up water supply:** Ensure the main water back-up supply is OK, and that there are no leaks.
- Control unit:** Making sure the unit is operating as expected and the alarm function is working correctly.
- Water level gauge:** Gauge indication checks are working in tandem with the tank water level.
- Wiring:** A visual check that wiring is electrically safe.
- Pipework:** Check for leaks, that pipes are watertight, and overflows are clear.
- Markings:** Ensure warning notices and pipework identification is correct and present.
- Support and fixings:** Any adjusting and tightening where needed.
- UV lamps:** Cleaning and replacement if required.

# Summary

- Capex Cost between £2,500 and £6,000 for residential – dependent on roof m2 and localised rainfall
- Use for clothes washing, flushing, hand washing, irrigation and car washing
- Simple civils installation
- Commercial schemes available
- Newbuild housing schemes available



# Smart Energy For Smart Business

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