

Drain Water Heat Recovery

Before DWHR:

Cold water enters water heater at 6°C.

Water heater heats it to 50°C.

Shower temperature is 40°C.

Water going down the drain has cooled to 37°C.

After DWHR Installation:

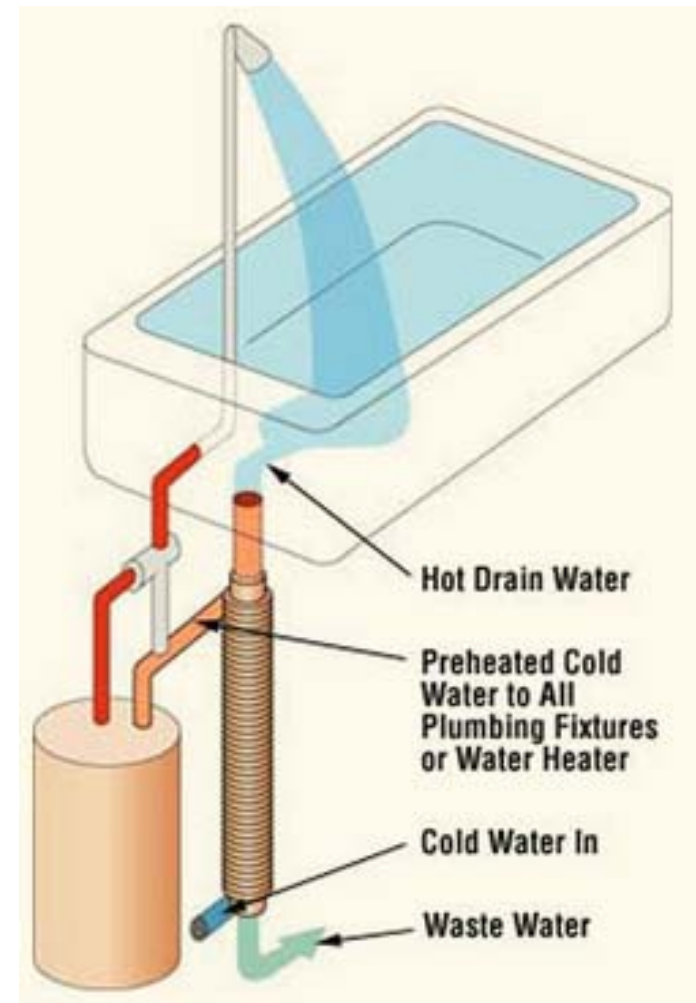
Cold water enters your home at 6°C.

Cold water is pre-heated to 22°C.

Water heater heats it to 50°C.

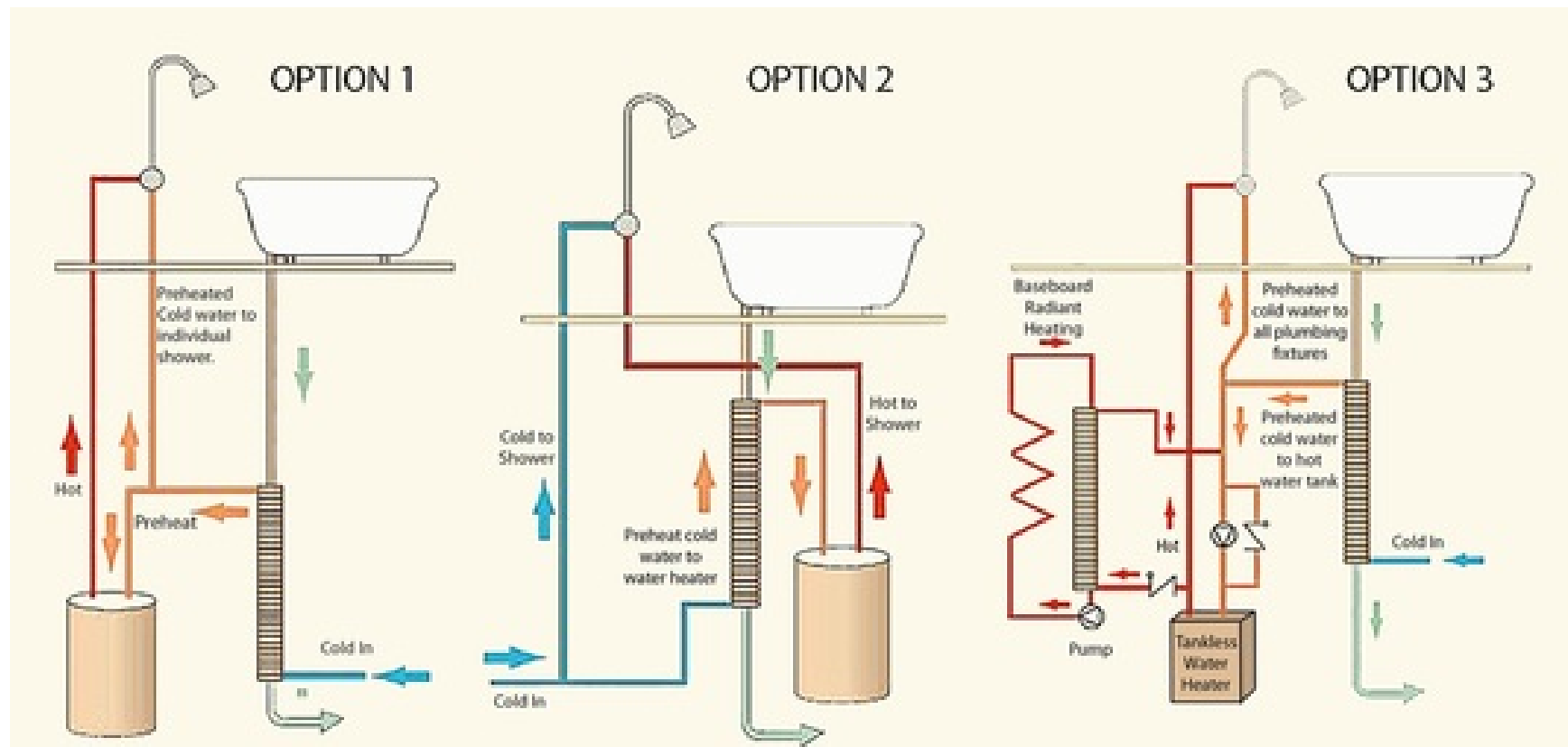
Shower temperature is 40°C.

Water going down the drain is now cooled to 22°C.

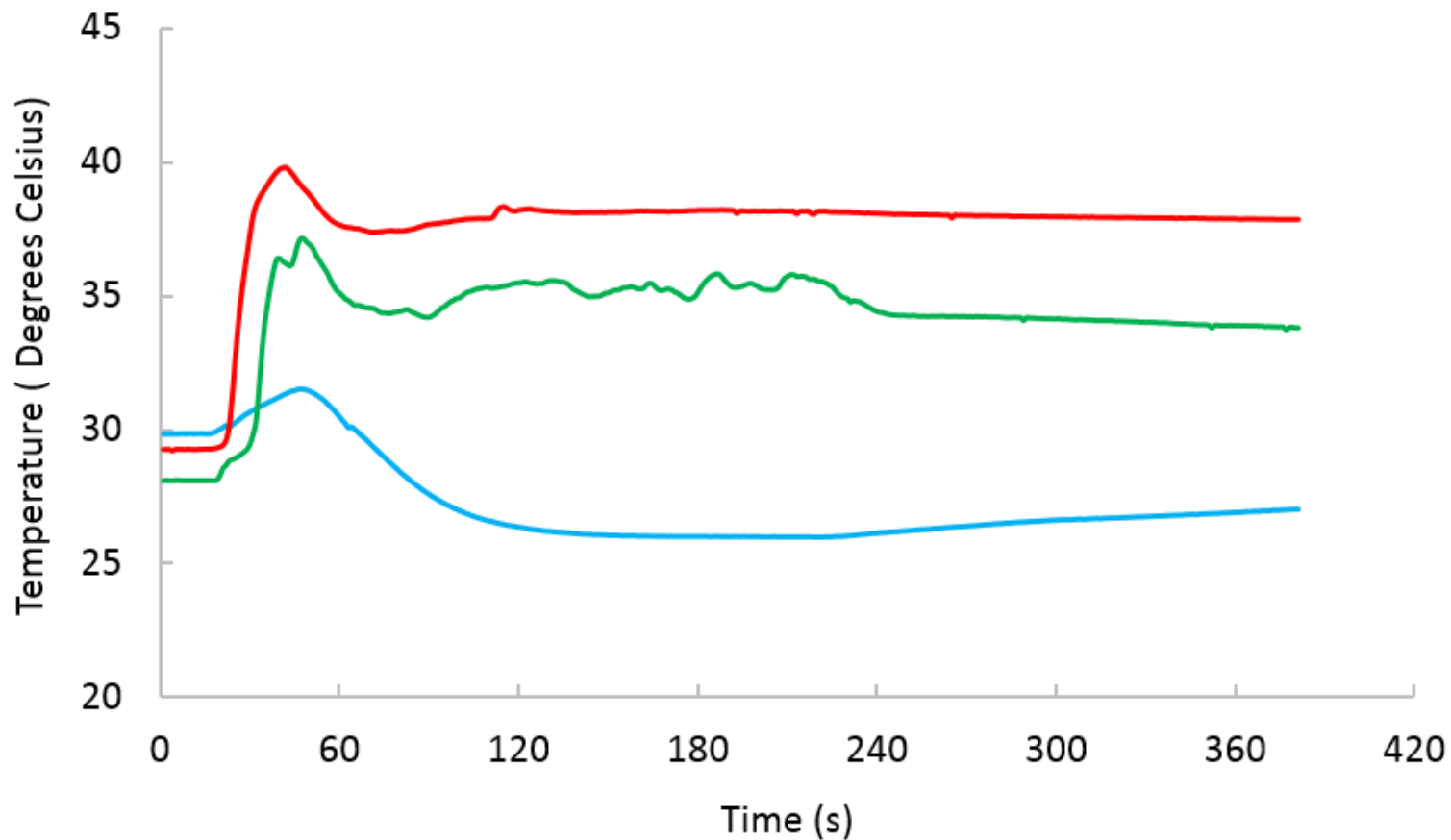


Source: <http://www.aces-energy.com/drain-water-heat-recovery.html>

Drain Water Heat Recovery



Shower Data



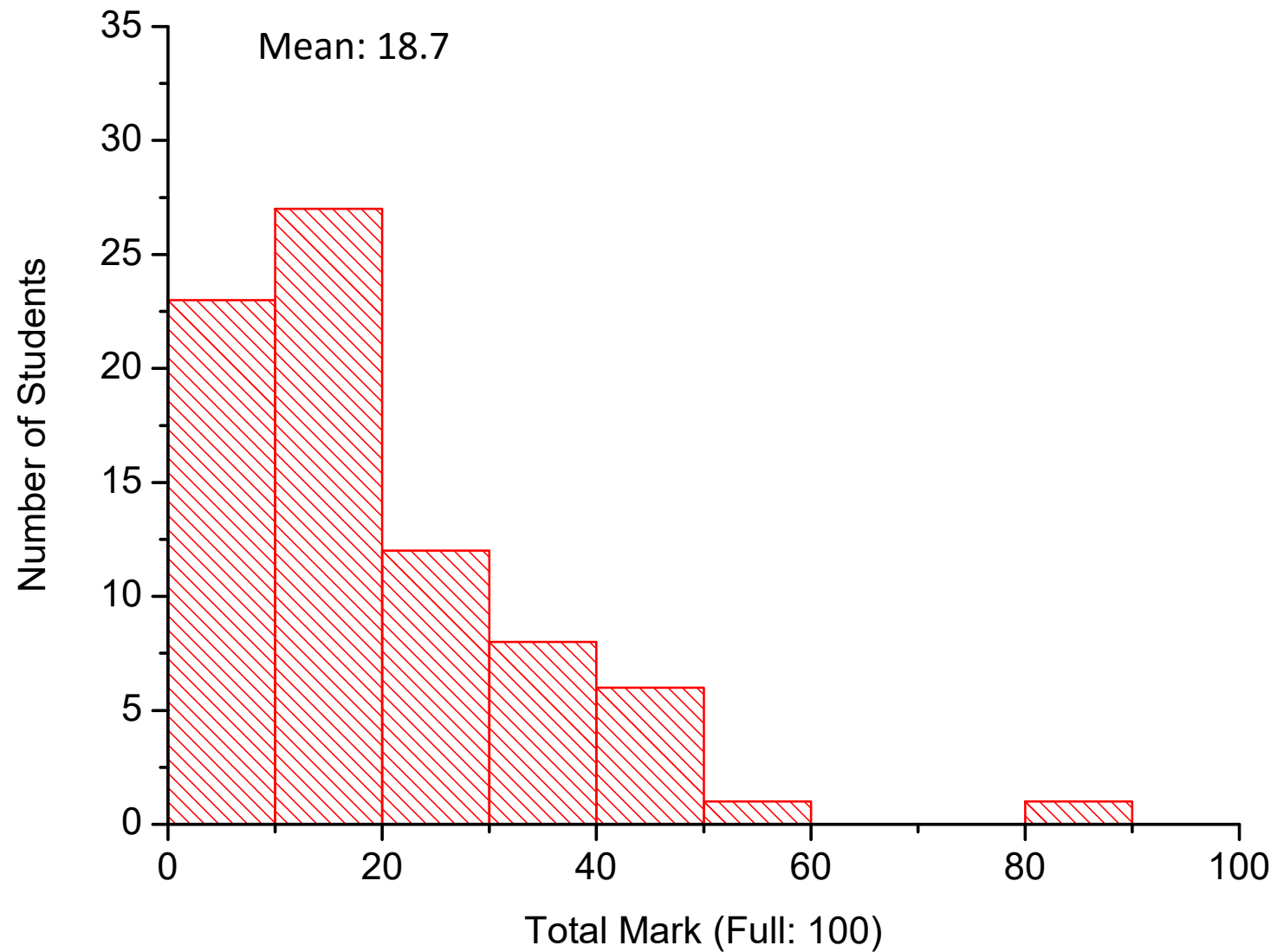
34 litres water used in 381 s; Mass flow rate = $34\text{kg}/381\text{s} = 0.0892\text{ kg/s}$

20 litres LPG = 0.020 m^3 at calorific value of 26 kWh/m^3 ;

Energy input = $26 \times 0.020\text{ m}^3 = 0.52\text{ kWh}$.

0.404 kWh net heat input to water/ 0.52 kWh from gas = approx. 78% boiler efficiency.

Phase 1 Selection Test 1



Distinguished lectures by Prof. Yuen-Ron Shen (沈元壤)

1. 17 Nov, 2016 (16:30 to 18:00)

- Research Lecture on “Importance and challenges to understand water interfaces”
- Venue: WLB109, Lam Woo International Conference Centre, Shaw Campus.

2. 18 Nov, 2016 (16:30 to 18:00)

- Public Lecture on the “History of Light”
- Venue: WLB109, Lam Woo International Conference Centre, Shaw Campus.