

7.2.1 State at least two institutional best practices

BEST PRACTICE – I

Green Energy Solar panel for hot water

The basic need for hot water is very expensive as it heaps a huge amount of energy. It is believed that more than 18% of domestic energy is used to heat water. Our Bhopal campus Boys & Girls Hostels after the Installation of Solar panel in All Hostels solar panel has great outweigh than any other form of energy is that when it comes to heating water is the **efficiency**, they bring to us. Efficiency here means the solar panels convert almost up to 80% radiation into the heat energy without making use of any external fuels.



The basic need for hot water is very expensive as it heaps a huge amount of energy. It is believed that more than 18% of domestic energy is used to heat water. In most homes and businesses this energy is generated from fossil fuels – gas and oil. Most modern domestic boilers run on gas and heat water on demand. On top of that, there are many people who prefer using electricity to heat the water which is the most expensive method out of all. We also can't deny the fact that we need hot water on a daily basis.

The advent of 'green energy' has helped people to adopt efficient and sustainable methods to carry out daily activities. Here, the 'green' energy generated from the natural and ultimate source of natural energy that is the sun, using the solar panels. Solar energy comes from natural sources and leaves no carbon emissions like other fuels. In addition, the process does not produce any waste, does not produce any noise



pollution, and neither leaves any hazardous effects on the environment.

We know the major advantage of the solar panel is power saving. We are using the natural source of energy that is free, renewable, and unlimited- You will definitely notice the decreasing rates of the electricity bills. Electricity bills are usually high because of electrical water heaters and using sustainable and affordable methods of heating solutions will definitely cause a decline in electricity bills. So, it makes perfect sense to look for sustainable and affordable water heating solutions.

One way to cut down the massive electricity bills due to water heating is to invest in solar water heaters. Solar water heaters will not only reduce the electricity bills but will also offer numerous other advantages in a cost-effective manner.

Here are the few advantages of solar water heater:

Zero-cost

Ideally, the solar panel uses energy from the sun. This means we do not have to pay a single penny to the power grid for using electricity. Being a renewable source of energy, it is completely free and available each day. All we need to do is figure out how to fine-tune our panel to optimize the performance in cloudy weather.

Efficient

One of the primary reasons solar panel has great outweigh than any other form of energy is that when it comes to heating water is the efficiency, they bring to us. Efficiency here means the solar panels convert almost up to 80% radiation into the heat energy without making use of any external fuels.

Save space

If there is thought of space for mounting a solar PV panel, we do not need to worry about it as well. If the room is not enough, we can go for a thermal panel.

Save for environment

The world is accepting 'green' and there is no greener energy than solar panels. They have no dependency on fuels, have zero-emission, and lower carbon footprints.

Low maintenance

Solar water heaters do not require high maintenance. It only demands simple cleaning. As it does not contain any moving parts, there will be no tear and break which would need regular repairing attention. The manufacturer of solar water heater guarantee that it will work for almost 20-25 years but tend to work longer.

BEST PRACTICE – II

RO Water Plant for RO Water

Our Campus Install R.O. Water Plant of 1000 lit. Per hour capacity after the Installation of RO Water Plant for Healthy and Pure Water for All Staffs and Students.

Below are reasons & some advantage why you need a R.O. Water Plant

1. Removes disease-causing contaminants: In Urban India, 70% of Households rely on tap water and 27% rely on ground water for their drinking water needs (Based on Census 2011 data – Drinking Water Source by Households). These sources of water can be a common carrier of various disease-causing microbiological contaminants like viruses, bacteria, fungus and parasites.



These contaminants make the water unfit for consumption and may lead to several water-borne diseases like cholera, diarrhoea and typhoid. As a result, experts recommend using a RO water purifier that can protect you and your family from these water-borne diseases by removing all the life-threatening contaminants.

2. Sweetens the taste of water: The impurities in the water influence its flavour and even the taste



of food we cook in it. A RO water purifier is especially recommended when the taste of water is salty, in other words when it has higher concentration of Total Dissolved Solids (TDS) like sodium, calcium, magnesium, potassium, etc. Typically, when the TDS level is higher than 200 ppm, RO purification reduces the excess TDS, softens and sweetens the taste of water, while

retaining only pure drinking water.

3. **Removes Heavy Metals:** As per studies conducted across multiple cities to check the water quality of tap water/river water, it's been indicated that the water is unsafe for drinking purpose as it has higher level of contaminants like Nitrates, Heavy metals, pesticides etc than permitted levels*. These heavy metals can have severe long-term health impacts and can dysfunction kidneys, liver, nervous system and even lead to diseases like cancer and lead poisoning. A RO water purification is the most effective way of removing these heavy metals and chemicals like iron, lead, mercury, arsenic, chlorine, and fluoride. All the physical contaminants, micro-organisms are also filtered by a RO purifier which makes it 100% unadulterated for consumption.
4. **Effective Water Purification:** RO water purification provides added layer of protection compared to just using UF or UV filtration technology as it can remove the minutest of the chemical contaminants which might bypass the other filtration technologies when used alone. Combining RO water purification with UV filtration ensures purest drinking water free of any form of contaminants.
5. **Health Benefits:** Drinking RO purified water enhances our overall health and well-being. It improves digestive health, supports kidney function, hydrates and energizes our body, improves skin and hair health along with several other benefits.