WATER

Solar hot water. Water heating accounts for about 20% of home energy use.[1] Solar water heaters displace the GHG emissions associated with gas and electric water heaters by warming household water through the use of solar collectors, which are rooftop- or ground-mounted pipes filled with water. The water inside these pipes either flows passively or is circulated by pumps into the household when needed (direct circulation). Pipes can also be filled with another liquid that is used to heat water (indirect circulation). Installation of solar hot water systems has risen and fallen based on the price of energy, as well as government catalysts available to support it.[2]

- Fishery friendliness: Solar hot water heaters have no direct impact on fisheries or fishery ecosystems. Furthermore, by reducing the amount of energy needed for heating and cooling, solar hot water heaters can reduce the amount of energy production needed to maintain current standards of living, including energy that is produced in fishery-unfriendly ways.
- Co-benefits: Solar hot water heaters can help building owners and tenants save money on gas or electricity bills.
- Environmental externalities: There do not appear to be any significant environmental externalities associated with solar hot water heaters.
- Policy catalysts: Adoption of solar hot water heaters can be enabled and incentivized through rebates, tax incentives, building codes, utility-based demand reduction programs, low-income energy efficiency programs, government procurement and lead-by-example policies, enabling of financing instruments (e.g., property assessed clean energy programs, energy savings performance contracting, green banks), certification incentives (e.g., LEED, Energy Star), and carbon pricing.
- More information:
    - Drawdown: Solar hot water
    - Department of Energy: Solar water heaters

Low-flow fixtures. It takes a significant amount of energy to clean, transport, and heat water, as well as to transport and treat wastewater. By reducing the amount of water used, significant savings in energy usage can be achieved all around. Low-flow fixtures, including showers, faucets, and toilets, have been in use since the 1980s and a number of states have water efficiency standards in place. The Energy Policy Act of 1992 mandates maximum water efficiencies for residential fixtures.

- Fishery friendliness: Low-flow fixtures have no negative impacts on fisheries or fishery ecosystems. Furthermore, by reducing the amount of energy needed for heating and cooling, they can indirectly reduce the amount of energy production needed to maintain current standards of living, including energy that is produced in fishery-unfriendly ways.

[1] DOE. "Water heating." https://www.energy.gov/energysaver/water-heating
[2] Drawdown. "Solar hot water." https://drawdown.org/solutions/solar-hot-water

Moreover, by reducing water resource use and wastewater production, low-flow fixtures can reduce impacts on water quantity and quality, with benefits for fishery ecosystems.

- Co-benefits: Low-flow fixtures can help home/building owners and tenants save money on gas or electricity bills as well as water bills.
- Environmental externalities: There do not appear to be any negative environmental externalities associated with low-flow water fixtures. In fact, any side effects are likely to be positive, by reducing the amount of water resources used and wastewater generated by homes and buildings.
- Policy catalysts: Installation of low-flow fixtures can be incentivized though tax incentives, rebates, standards, and building codes.
- More information:
    - Drawdown: Low flow fixtures
    - Wikipedia: Low flow fixtures

Continue reading at https://fisheryfriendlyclimateaction.org/solutions