

ELECTRICITY CONSUMPTION

Electric power consumption per capita (kWh) is the production of power plants and combined heat and power plants less transmission, distribution, and transformation losses and own use by heat and power plants, divided by midyear population. Energy data are compiled by the International Energy Agency (IEA).

Problems

The environmental problems directly related to energy production and consumption include air pollution, climate change, water pollution, thermal pollution, and solid waste disposal. The emission of air pollutants from fossil fuel combustion is the major cause of urban air pollution.

Solution

Devices like televisions, microwaves, scanners, and printers use standby power, even when off. Some chargers continue to pull small amounts of energy, even when plugged in (a good judge of this is if a charger feels warm to the touch).

Individual Ideas

Properly insulate and air seal your home. Select an energy-efficient heating system that doesn't use electricity. Electric water heating. - Purchase an Energy Star heat pump water heater and operate it efficiently. Reduce your "always-on" appliance

TIP
You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!



Key rules of brainstorming

To run a smooth and productive session

- Stay in topic.
- Defer judgment.
- Go for volume.
- Encourage wild ideas.
- Listen to others.
- If possible, be visual.

"Phantom energy," also known as "standby energy" or "vampire energy," is the electricity used by electronics when turned off or in standby mode. Standby energy is a major energy waste. According to the U.S. Department of Energy (DOE), it accounts for 5 percent to 10 percent of residential energy use and costs the average U.S. household as much as \$100 per year. Smart power strips, also known as advanced power strips, eliminate the problem of phantom loads by shutting off the power to electronics when they are not in use. Smart power strips can be set to turn off at an assigned time, during a period of inactivity, through remote switches, or based on the status of a "master" device.

Upgrades to the third component of an HVAC system -- ventilation -- can also improve your energy efficiency. A ventilation system is composed of a network of ducts, which distributes hot and cold air throughout your home. If these ducts are not properly sealed or insulated, the resulting energy waste can add hundreds of dollars to your annual heating and cooling expenses. Proper insulation and maintenance on your ventilation system can reduce your heating and cooling expenses by up to 30 percent.

ENERGY STAR notes that ENERGY STAR certified central air conditioners have higher seasonal energy efficiency ratio (SEER) and energy efficiency ratio (EER) ratings and use 6 percent less energy than conventional air models.

Air leaking out of your home is most often from the home interior into your attic through small openings. Whether it is through ducts, light fixtures, or the attic hatch, hot air will rise and escape through small openings. As the natural flow of heat is from warmer to cooler areas, these small openings can make your heating bill even higher if your attic is not sufficiently insulated. To reap the full amount of savings from weatherization, you should consider fully insulating your home.

Many products across your home use filters, including your HVAC system. These systems often come with displayed reminders to replace or clean filters regularly. Doing so will not only help you avoid having to make costly repairs to your air conditioning or other system, but could also save money. In fact, The DOE notes that replacing dirty filters regularly can reduce household energy consumption by 5 to 6 percent. This is because clean filters are more efficient and put less strain on your system. Check to see whether your filters need to be cleaned or replaced and you'll want to clean them every month or two usually, or refer to the manufacturer's recommendations for your specific HVAC equipment.

3

Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you can break it up into smaller sub-groups.

20 minutes

Computers are some of the biggest energy users in office buildings. Turn your computer off at night and click the screen on. Today's computers can be turned on and off automatically, saving a tremendous amount of energy. Turn your computer off at night and click the screen on.

LED bulbs are the most energy efficient lighting option. LED bulbs use 75% less electricity than incandescent bulbs (Energy Star). They also have no mercury, and last about 25 times longer than incandescent bulbs (DOE).

Devices like televisions, microwaves, scanners, and printers use standby power, even when off. Some chargers continue to pull small amounts of energy, even when plugged in. A good judge of this is if a charger feels warm to the touch. In the U.S., the total electricity consumed by all electronic equals the annual output of 10 power plants (DOE).

To avoid paying for this "vampire power," turn a power strip to turn all devices off at once. Flipping the switch on your power strip has the same effect as unplugging each device from the wall, preventing phantom energy loss.

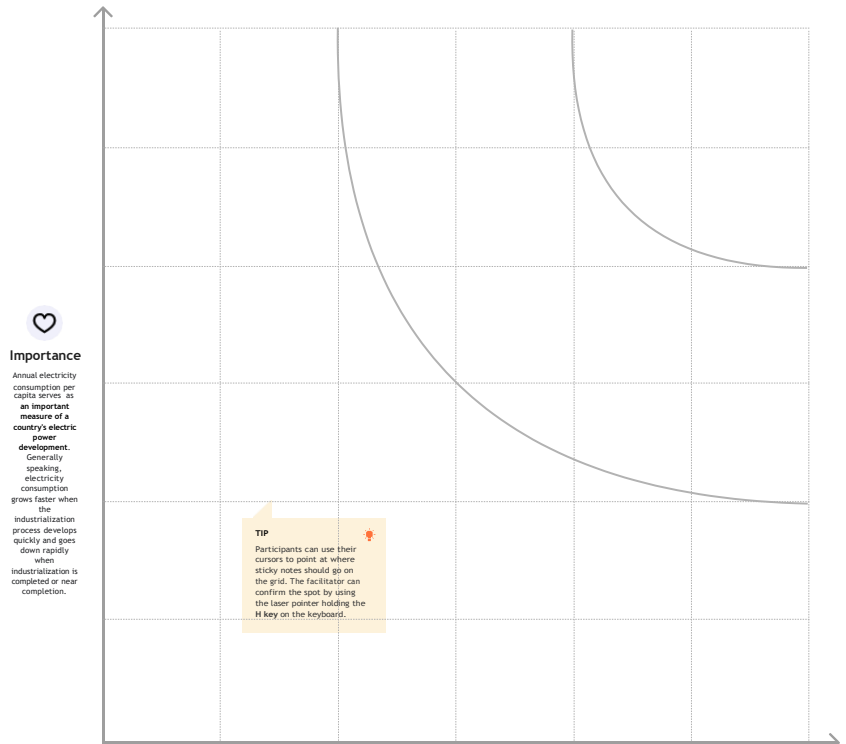
TIP
Add customizable tags to sticky notes to make it easier to find, browse, organize, and categorize important ideas as themes within your mural.

4

Prioritize

The energy pyramid is a decision-making tool that can be applied to various energy-related applications including residential and agricultural settings.

20 minutes



Importance

Annual electricity consumption per capita serves as an important measure of a country's electric power development. Generally speaking, electricity consumption grows faster when the industrialization process develops quickly and goes down rapidly when industrialization is completed or near completion.

TIP
Participants can use their cursors to point at where sticky notes should go on the grid. The facilitator can confirm the spot by using the Laser pointer holding the H key on the keyboard.



Feasibility

changing climatic conditions, the possibility of additional load due to other connections, the occurrence of accidents in operation. These factors can lead to a decrease in the quality of power supply, which, as a result, will lead to the fact that electrical installations will not work.

5

After you collaborate

Electricity generation can be a major source of pollution. In a compact region where pollutants can easily transfer from one city to another, a unilateral response—on the part of one city to improve its environmental conditions—is often ineffective.

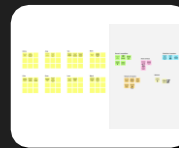
Quick add-ons

- Share the mural**
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- Export the mural**
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

Keep moving forward

- Strategy blueprint**
Define the components of a new idea or strategy.
[Open the template](#)
- Customer experience Journey map**
Understand customer needs, motivations, and obstacles for an experience.
[Open the template](#)
- Strengths, weaknesses, opportunities & threats**
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.
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Need some inspiration?

See a finished version of this template to kickstart your work.

[Open example](#)

