

# Sustainability Project:

Houses that are not energy  
efficient.

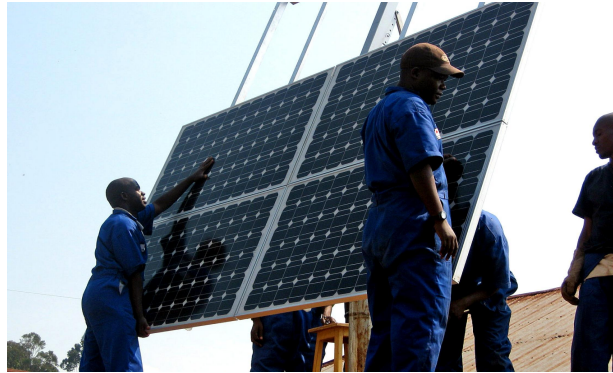
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## what is the **background of the issue**, why did you **choose it?**

Technology to utilise the forces of nature for doing work to supply human needs. The attention swung away from renewable sources as the industrial revolution progressed on the basis of the concentrated energy locked up in fossil fuels. Renewable costs are continuing to fall on a year-to-year basis, while oil, gas, and coal from new sources are significantly more difficult to extract, which will cause carbon-based fuels to rise in cost...

All forms of electricity generation have an environmental impact on our air, water and land, but it varies. The total energy consumed is used to generate electricity, making electricity use an important part of each person's environmental footprint. Producing and using electricity more efficiently reduces both the amount of fuel needed to generate electricity and the amount of greenhouse gases and other air pollution emitted as a result.



As electricity demand escalated, with supply depending largely on fossil fuels plus some hydro power and then nuclear energy, concerns arose about carbon dioxide emissions contributing to possible global warming. Attention again turned to the huge sources of energy surging around us in nature – sun, wind, and seas in particular.

Electricity from renewable resources such as solar, geothermal, and wind generally does not contribute to climate change or local air pollution since no fuels are combusted.

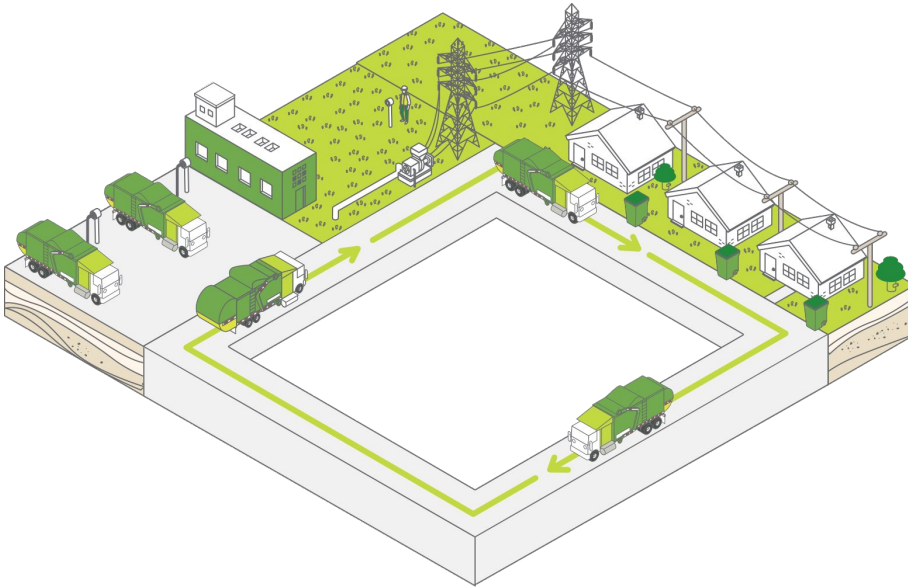


What's the problem? with...

## Houses that are not energy efficient:

Energy efficiency now has an important place in the public policy agenda of most developed countries. The importance of energy efficiency as a policy objective is linked to commercial, industrial competitiveness and energy security benefits, as well as increasingly to environmental benefits.

Energy efficiency houses are often thought to be a promising way to reduce our environmental footprint by using less energy and producing fewer greenhouse gas emissions. Sometimes a new home designed to save energy can end up using more than an average house. Unfortunately, the reality is that the incremental changes offered by energy efficiency will not tip the currently massive imbalance of supply and demand fast enough to make a significant impact on carbon emissions, energy prices, or energy supplies.



## Why is what you chose a problem?

The unfortunate fact is that the efficiency conversation takes time, attention, and research funds away from the crucial search for alternative, sustainable energy sources. Globally, there would be a significant impact on global sustainability if every organization dedicated time to improving the energy efficiency of their buildings.

Alternative system:

# What's the solution?

The right way to achieve sustainable energy savings is by combining passive energy efficiency activities with active energy efficiency strategies.

- Passive energy efficiency relies on the implementation of measures, low consumption equipment, and products (like insulation) to minimize thermal energy losses.
- While active energy efficiency is a more permanent approach and involves continual measurement, monitoring, and control of energy through energy-saving devices.

There is even greater potential to save energy by considering the materials used to build our homes and the way we move around. Although, now is the time to look beyond individual homes, and start building better, more affordable, more energy-efficient neighbourhoods and cities.





# WHAT IS A PASSIVE HOUSE?

Passive house - energy  
reduction

How can we change, slowly or rapidly?

# What can ONE individual do to help fix the problem?

Switch to cleaner energy resources:

Clean energy generally means energy generated using renewable energy sources that emit no or negligible air emissions—solar and wind energy, for example—as well as clean distributed generation, such as combined heat and power. As the price of wind and solar energy continues to fall, more and more people are purchasing renewable energy.



**CONCLUSION:** What would the world look like...

## if the problem was fixed using your solutions?

PROS: The main advantage of investing in energy efficiency is obviously a long term decision. If we commit to being more responsible with the environment, we will be investing in a better future for all of us. In addition, we will manage to save on our bills in the long term, as well as being more responsible in the use of natural resources.

### The benefits of clean energy

- Reduced air pollution and greenhouse gas emissions
- Lower consumer energy bills
- Enhanced state and local economic development and job creation
- Improved energy system reliability and security

CONS: The main problem of energy efficiency is that it is not imposed in our society on a large scale.

The investment in greener preventive measures is a step in the right direction that will benefit all of us, as well as help us save money. Not all the products that we are using are efficient, that is why finding the right ones is not a simple task.

**Thank you.**

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