# A Study of Traditional and Non-Traditional Energy Sources for Future Milestone

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Abstract – India has a vast supply of renewable energy resources, and it has one of the largest programs in the world for deploying renewable energy products and systems. Indeed, it is the only country in the world to have an exclusive ministry for renewable energy development, the ministry of non-conventional energy sources (MNES). Since its formation, the ministry has launched one of the world's largest and most ambitious programs on renewable energy. Based on various promotional efforts put in place by MNES, significant progress is being made in power generation from renewable energy sources. In October, MNES was renamed the ministry of new and renewable energy.

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## INTRODUCTION

The contemporary non-routine wellsprings of vitality like wind, tidal, sun based and so forth was the traditional sources until James Watt created the steam motor in the eighteenth century. Actually, man utilizing wind-controlled ships just investigated the New World. The nonconventional sources are accessible free of expense, are sans contamination and boundless. Man has utilized these hotspots for a long time in pushing ships, driving windmills for crushing corn and pumping water, and so on. As a result of the poor innovations then existing, the expense of saddling vitality from these sources was very high. Additionally in view of instability of time of accessibility and the trouble of transporting this type of vitality, to the spot of its utilization are a portion of the variables which came in the method for its reception or advancement. The utilization of fossil powers and atomic vitality supplanted absolutely the non-routine strategies due to inalienable preferences of transportation and assurance of accessibility; however these have dirtied the air all things considered. Truth be told, it is expected that atomic vitality may end up being very dangerous on the off chance that it is not appropriately controlled. In 1973 the Arab countries set a ban on petroleum. Individuals started to understand that the fossil fills are not going to last more and that residual stores ought to be saved for the petro-substance industry. Be that as it may, lamentably, both atomic and coal vitality posture genuine ecological issues. The burning of coal may annoy the planet's warmth equalization (Bing, 1998). The generation of carbon dioxide and Sulphur dioxide may antagonistically influence the capacity of the planet to create nourishment for its kin. Coal is additionally an important petro-compound and from long haul perspective it is undesirable to blaze coal for era of power. The significant trouble with atomic vitality is waste transfer and coincidental spillage (e.g. spillage at Chernobyl atomic force plant). As an aftereffect of these issues, it was chosen by every one of the nations to create and tackle the non-traditional wellsprings of vitality, despite the fact that they are generally costlier when contrasted with fossil-fuel sources. It is trusted that with progression in innovation and that's only the tip of the iceberg research in the field of advancement of non-ordinary wellsprings of vitality, these sources may end up being practical too. The eventual fate of wind, sun powered, tidal and other vitality sources is splendid and these will assume an essential part on the planet vitality scenario. The accompanying segments have been dedicated to the investigation of a portion of the critical nonconventional wellsprings of vitality (Brookshier, 2004). Humankind as it is some of the time called has known tidal or lunar vitality since time immemorial. Different gadgets, especially the plants were worked utilizing tidal force. In the past water supply of London was pumped to a water tower by a factory worked by the tidal force (which comprised of an extensive oar wheel, mounted on a flatboat and affixed between two of the docks of old London Bridge). The tidal force has been utilized to water fields in Germany and to saw kindling in Canada. Tides are brought on by the joined gravitational powers of Sun and Moon on the waters of the rotating Earth (Byrne & Houlsby, 2003). At the point when the

gravitational strengths because of the Sun and the Moon include, tides of greatest reach, called spring tides, are gotten. Then again, when the two powers restrict each other, tides of least range, called neap tides, are gotten. In one year there are around 705 full tidal cycles. It has been recommended, that for bridling tidal power successfully the most practicable strategy is the bowl framework. Here a bit of the ocean is encased behind a dam or dams and water is permitted to gone through turbines, as the tide dies down. The force accessible from a given head of water fluctuates as the square of the head and since the head shifts with the tidal reach, the force accessible at various locales from tidal vitality demonstrates wide variety. Different tidal bowl frameworks have, hence, been developed, with a specific end goal to defeat this wide variety in accessibility of tidal force. Single Basin System The least complex plan for creating tidal force is the single bowl course of action, in which a solitary bowl of consistent territory is given conduits (doors), sufficiently substantial to concede the tide, so that the loss of head is little. The level of water in the bowl is the same as that of the tide outside. At the point when the tides are high, water is put away in the bowl and conduit entryways are shut. At the point when the tides are falling, floodgates are opened to permit water to experience the turbine to produce power. A head of water is clearly required for the turbine to produce water. This keeps on producing power till the level of the falling tides agrees with the level of the following rising tide. The significant burden of this single bowl plan is that it gives irregular supply of force, differing extensively over the time of operation. It is therefore that the tidal force has not been created on an extensive scale. Likewise with this plan, just around 50 for each penny of tidal vitality are accessible.

## **REVIEW OF LITERATURE:**

A change over the single bowl framework is the twobowl framework. In this framework, a steady and ceaseless yield is kept up by reasonable change of the turbine valves to suit the head under which these turbines are working. A two-bowl framework manages power yield of an individual tide however it can't deal with the colossal contrast in yields amongst spring and neap tides. This framework, thusly, gives a fractional answer for the issue, of getting an enduring yield of force from a tidal plan (Cada, et. al., 2004). This hindrance can be overcome by the joint operation of tidal power and pumped stockpiling plant. Amid the period when the tidal force plant is delivering more vitality than required, the pumped stockpiling plant uses the surplus force for pumping water to the upper store. At the point when the yield of the tidal force plant is low, the pumped stockpiling plant produces electric power and nourishes it to the framework. This essential rule of joint operation of tidal force with steam plant is additionally conceivable when it is associated with a matrix. For this situation, at whatever point tidal force is accessible, the yield of the steam plant will be decreased by that degree which prompts sparing in fuel and diminished wear and tear of steam plant. This operation requires the limit of steam force plant to be equivalent to that of tidal force plant and makes the general expense of force acquired from such a joined plan high. The two bowls near each other, work on the other hand. One bowl creates power when the tide is rising (bowl getting topped off) and the other bowl produces power while the tide is falling (bowl getting exhausted). The two bowls may have a typical force house or may have separate force house for every bowl. In both the cases, the force can created persistently (Anagnostopoulos be & 2007). The framework Papantonis, could be considered as a blend of two single bowl frameworks, in which one is creating power amid tiding cycle, and the other is creating power amid purging nature sets some essential points of confinement on how productively vitality can be utilized, yet much of the time our items and assembling procedures are still far from working at this hypothetical cutoff. Simply, vitality proficiency implies utilizing less vitality to play out the same capacity. In spite of the fact that, vitality productivity has been practically speaking as far back as the principal oil emergency in 1973, it has today expected considerably more significance on account of being the most financially savvy and solid method for moderating the worldwide climatic change (Beer, Acknowledgment of that potential has 2008). prompted exclusive requirements for the control of future co2 discharges through significantly more vitality productivity enhancements than have happened before. The mechanical division represents around 41 for each penny of worldwide essential vitality request and roughly the same offer of co2 emanations.

**Energy Strategy for the Future:** The vitality technique for the future could be ordered into quick, medium-term and long haul procedure. The different segments of these systems are recorded beneath:

Immediate-term procedure:

- Rationalizing the duty structure of different vitality items.
- Optimum use of existing resources
- Efficiency underway frameworks and decrease in dispersion misfortunes, incorporating those in conventional vitality sources.
- Promoting R&D, exchange and utilization of innovations and practices for naturally solid vitality frameworks, including new and renewable vitality sources.

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Medium-term technique:

- Demand administration through more prominent protection of vitality, ideal fuel blend, basic changes in the economy, a proper model blend in the vehicle area, i.e. more prominent reliance on rail than on street for the development of merchandise and travelers and a shift far from private modes to open modes for traveler transport; changes in configuration of various items to decrease the material power of those items, reusing, and so on.
- There is have to move to less vitality concentrated methods of transport. This would incorporate measures to enhance the vehicle framework viz. streets, better plan of vehicles, utilization of packed characteristic gas (CNG) and engineered fuel, and so on. Likewise, better urban arranging would likewise diminish the interest for vitality use in the vehicle area.
- There is have to move far from nonrenewable to renewable vitality sources viz. sun powered, wind, biomass vitality, and so on. Long haul technique: Efficient era of vitality assets.
- Efficient generation of coal, oil and characteristic gas
- Reduction of normal gas flaring Improving vitality base
- Building new refineries
- Creation of urban gas transmission and dispersion system
- Maximizing proficiency of rail transport of coal creation.
- Building new coal and gas let go power stations. Upgrading vitality productivity
- The mission of department of vitality proficiency is to regulate vitality effectiveness administrations, empower conveyance components in the nation and give authority to vitality productivity in all parts of economy. The essential goal would be to lessen vitality force in the Indian economy.

# CONCLUSION:

Energy solutions used in other national parks and recreation areas could prove effective in El Yunque National Park. Studying these cases has also alluded to adaptations that will have to be made for compatibility with the tropical climate of the project site. Having knowledge of the previous implementations of energy solutions will aid in choosing those most suitable for El Yunque National Park. Conservation and solar power have appeared to be the most promising energy solutions at this point in the project. Replacing light bulbs and applying recycling plans are cheap, easy ways to conserve energy. If park management can ensure employee and guest participation, the geographic location of the project site makes it a prime candidate for harnessing solar power since it is located near the equator. Barring the potentially adverse effects of cloud cover and sunlight obstruction, solar power could help solve El Yunque's energy problem.

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