

A sunset over a solar farm. The sun is low on the horizon, casting a warm glow over the sky and the solar panels in the foreground. The sky is filled with colorful clouds in shades of orange, yellow, and blue. The solar panels are arranged in neat rows, and their reflection is visible on the ground. The overall scene is peaceful and highlights the theme of sustainable energy.

# **Energy Conservation: A Path to Sustaining Earth, Water, Fire, Air, and Space**



# Energy Conservation and life

*Energy conservation has a profound impact on day-to-day operations of life and the five elements of life—earth, water, fire, air, and space—by ensuring a sustainable balance between resource utilization and environmental preservation.*



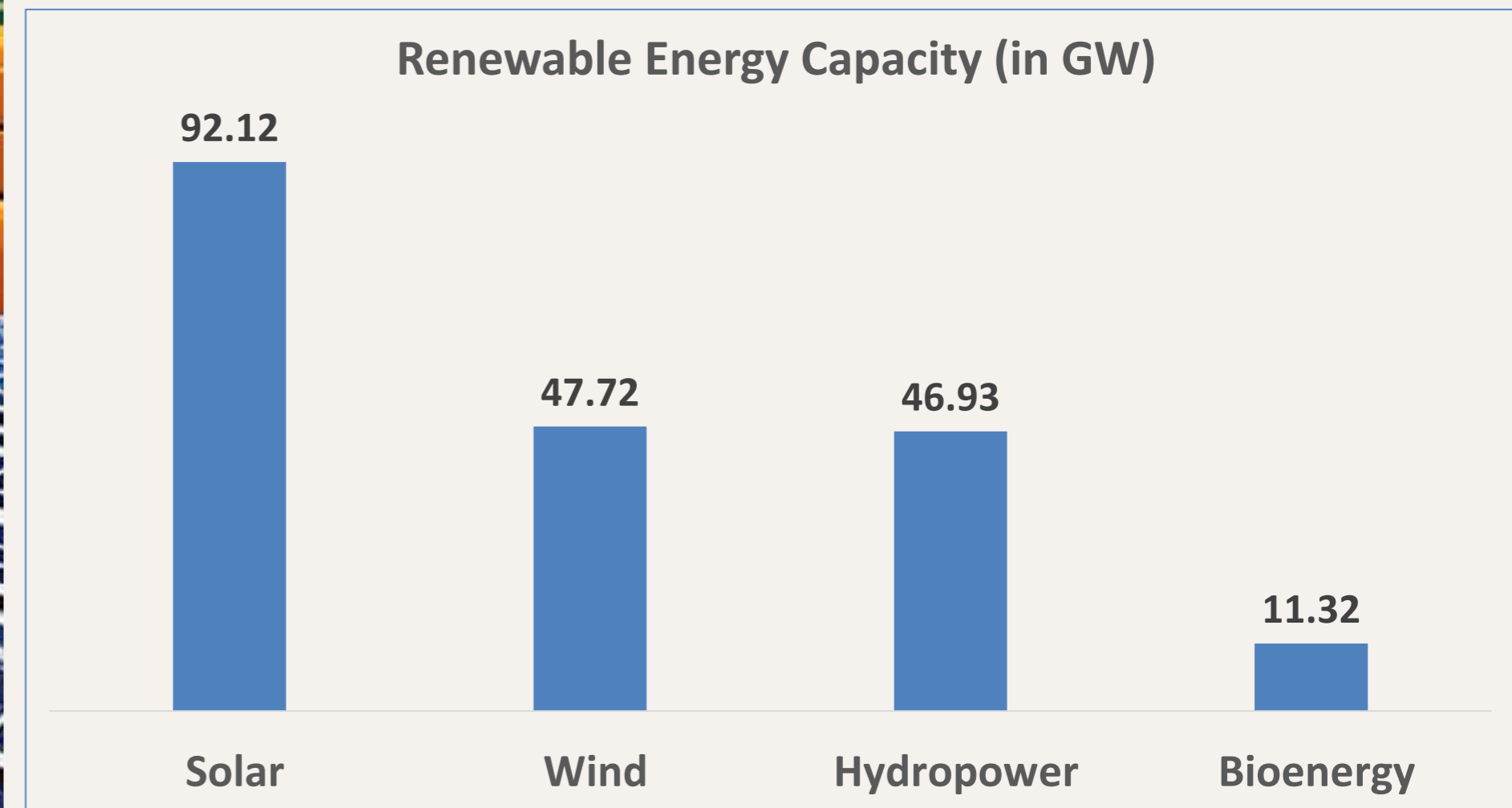
- ❖ **Air (Vayu):** Promoting wind energy and reducing air pollution through clean energy initiatives.
- ❖ **Water (Jal):** Conserving water in power generation and leveraging hydropower for renewable energy.
- ❖ **Fire (Agni):** Efficient use of thermal energy, transitioning from fossil fuels to clean combustion systems.
- ❖ **Earth (Prithvi):** Utilizing sustainable resources like biomass and conserving soil through reduced energy-intensive farming practices.
- ❖ **Space (Akash):** Expanding solar energy systems, tapping into the limitless energy of the sun.





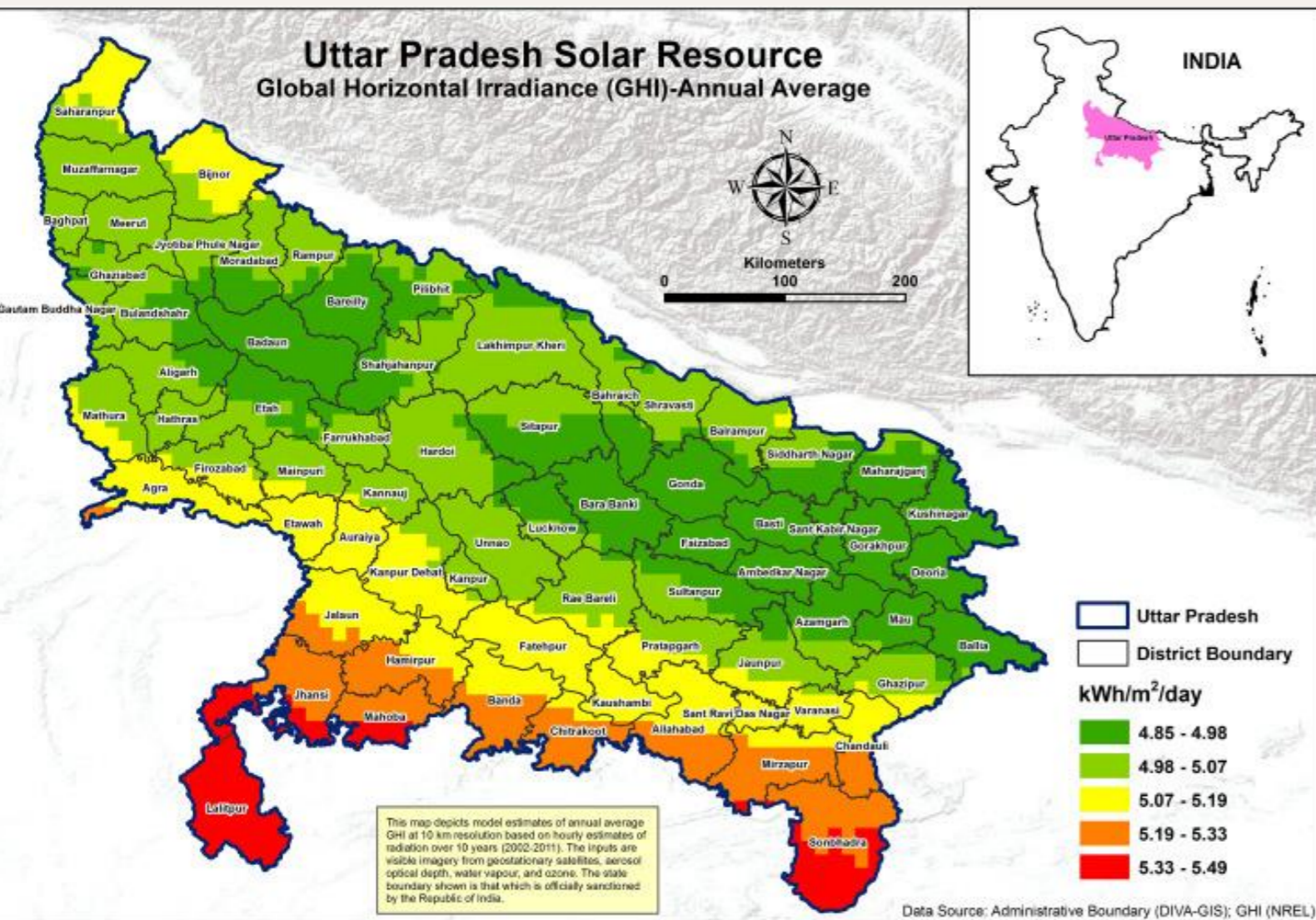
# India's Renewable Energy Milestones

**Total Renewable Energy Capacity (October 2024): 203.18 GW (46.3% of total capacity).**



**Target for 2030: 500 GW of non-fossil fuel capacity.**





# Uttar Pradesh: A Leader in Energy Conservation

- ❖ Implementation of PM-KUSUM for solar irrigation pumps.
- ❖ Expansion of rooftop solar installations in urban and rural areas.
- ❖ Replacement of traditional streetlights with LED lights.
- ❖ Distribution of LED bulbs under UJALA, saving millions of kWh annually.
- ❖ Deployment of smart meters to reduce energy theft and improve billing efficiency.
- ❖ Focus on reducing AT&C losses across the state
- ❖ **UJALA Program:** Distribution of LED bulbs, saving **48 billion kWh annually** and reducing **39 million tons of CO2 emissions**.
- ❖ **National Green Hydrogen Mission:** Developing clean hydrogen technologies.
- ❖ **Green Energy Open Access Rules:** Facilitating renewable adoption.
- ❖ **Carbon Credit Trading Scheme (CCTS):** Establishing a domestic carbon market.
- ❖ Total Electricity Generation tied up capacity of 40,191 MW by FY 2028, out of which 30,003 MW is operational.
- ❖ As per Uttar Pradesh Solar Energy Policy 2022, A total of 14 GW of Utility Scale Solar Energy power projects are planned till FY 2028
- ❖ **Green Power Tariff :** GoUP has decided to introduce Green Energy Tariff at 50% of this additional cost of Rs. 0.54 per kWh.





# Innovative Ideas for a Sustainable Future



- ❖ Track your energy usage in real time and identify areas where you can reduce consumption.
- ❖ Replace old appliances with 5-star energy-rated ones to save electricity.
- ❖ Use smart power strips that automatically cut power to devices in standby mode.
- ❖ Prevent heat loss by insulating water pipes
- ❖ Expansion of electric buses and solar-powered EV charging stations.
- ❖ Develop an **Irrigation Energy Optimization Program** to monitor and control pump usage based on soil moisture and weather conditions using IoT sensors.





# Join the Movement for a Sustainable Future

- **Individual Actions:**

- Turn off appliances when not in use.
- Use energy-efficient appliances like LEDs and 5-star-rated devices.

- **Community Actions:**

- Participate in local renewable energy programs.
- Support clean energy projects in your neighborhood.

- **Advocacy:**

- Spread awareness about the importance of energy conservation.
- Encourage others to adopt sustainable practices.

