

Current Affairs search results for: "Mathura"

### **1. India to produce 5 million tonnes of green hydrogen by 2030 ( Feb. 18, 2022 )**

**The Union Power Ministry** has notified its **green hydrogen/green ammonia policy** on 17 February 2022. It puts into reality **the National Hydrogen Mission** announced by the Prime Minister in the 15 August 2021 speech.

The aim of the National Hydrogen Mission is to meet its climate change target of net zero carbon emission by **2070** and make India a production and export hub of hydrogen fuel.

#### **The main highlights of the green hydrogen/green ammonia policy:**

- The policy has set a target to produce **5 million tonnes of green hydrogen by 2030**.
- **Separate manufacturing zones** will be set up for manufacturing of green hydrogen /green ammonia.
- The government would allow free power transmission to renewable energy units set up by green-hydrogen producers and power banking facilities for 30 days.
- There will be charges for inter-state transmission for a period of 25 years if the manufacture of green hydrogen and green ammonia is started before 30th June 2025.

In order to deal with the challenge of **global warming and climate change** countries around the world are promoting hydrogen as an alternative fuel. In India many companies have projects to produce green hydrogen.

- Indian Oil Corporation plans to build the country's **first green-hydrogen plant** at its Mathura refinery.
- NTPC will set up the country's **first green hydrogen microgrid project** at its Simhadri plant in Andhra Pradesh.

### **Concept clearing**

#### **Green Hydrogen, Brown Hydrogen, Blue Hydrogen:**

Hydrogen is the first and the smallest element in the periodic table.

Depending upon the production method the colour of the hydrogen can be Green, Brown, Blue or Grey.

#### **Green Hydrogen**

It refers to the breaking down of the water molecule into hydrogen and oxygen using renewable sources of energy. Renewable source of energy means which can be used again and again like solar power, hydel, wind energy etc. It contains no carbon which is responsible for global warming.

#### **Grey Hydrogen**

Grey hydrogen is created from natural gas, or methane, using steam methane reformation. It produces Hydrogen and Carbon dioxide which is released in the atmosphere.

**Blue Hydrogen**

Blue hydrogen is produced mainly from natural gas, using a process called steam reforming, which brings together natural gas and heated water in the form of steam. It produces hydrogen and carbon dioxide.

**Black and Brown Hydrogen**

When black coal or lignite (brown coal) is used in the hydrogen-making process it is called as black or brown coal.