SIGHT Scheme: Environment (Scheme)

The SIGHT Scheme, a key component of India's National Green Hydrogen Mission, aims to scale up green hydrogen and green ammonia production through incentives for electrolyser manufacturing and demand aggregation, supporting India's Net Zero 2070 goal. Its first-ever SECI auction for green ammonia under Mode-2A achieved a record low price of ₹55.75/kg. First-Ever Green Ammonia Auction under SIGHT Scheme – Record Low Price

Recent Development

Under the National Green Hydrogen Mission (NGHM), the first-ever auction for procurement of Green Ammonia was conducted by the Solar Energy Corporation of India (SECI). Achieved a record low price discovery of ₹55.75/kg for Green Ammonia under Mode-2A of the SIGHT Scheme.

SIGHT Scheme (Strategic Interventions for Green Hydrogen Transition)

Launched in January 2023 as the flagship financial component of the NGHM. The Parent Mission includes National Green Hydrogen Mission (NGHM) – implemented by the Ministry of New and Renewable Energy (MNRE).

Budgetary Outlay

1. ₹17,490 crore for SIGHT Scheme (out of ₹19,744 crore for NGHM).
2. Timeline: Till FY 2029–30.

Implementing Agencies

Primary Ministries, MNRE and Ministry of Petroleum & Natural Gas (MoPNG).

Execution Partners,

1. Solar Energy Corporation of India (SECI) – for competitive reverse auction tenders.
2. Public Sector Undertakings (PSUs) – for project execution.

Objectives of the Scheme

1. Scaling up Production

Increase green hydrogen production capacity in India.

2. Cost Competitiveness

Reduce the cost gap between green hydrogen and fossil-fuel-based hydrogen.

3. Domestic Manufacturing

Promote local production of electrolysers.

4. Stimulating Demand

Encourage usage across sectors such as fertilisers, steel, oil refining, mobility (transport).

5. Climate Goals

Support India's Net Zero by 2070 and Viksit Bharat @2047 vision.

Modes of Operation under SIGHT Scheme

Mode 1 – Incentive-Based Electrolyser Manufacturing

1. Incentives provided to manufacturers offering the lowest incentive requirement.
2. Aim: Boost domestic manufacturing capacity of electrolysers.

Mode 2A – Demand Aggregation & Offtake Support – Green Ammonia

1. Known as Component II.
2. Focus: Demand aggregation and long-term purchase assurance for Green Ammonia.

Key Features

1. 10-year supply contracts offered by SECI.
2. Production Linked Incentives (PLI) worth ₹1,533.4 crore.
3. Payment Security Mechanism for suppliers.

Mode 2B – Demand Aggregation – Green Hydrogen

1. Incentives provided for green hydrogen offtake.
2. Fixed Incentive Model: Year 1: ₹50/kg, Year 2: ₹40/kg, Year 3: ₹30/kg

Green Ammonia

Ammonia (NH_3) produced using green hydrogen (from renewable energy sources) and nitrogen (from air) via the Haber-Bosch process powered entirely by renewable electricity.

Key Uses

1. Fertilisers (major agricultural input).
2. Marine fuel (emerging low-carbon shipping solution).
3. Chemical manufacturing (feedstock for multiple industries).

Advantages

1. Zero carbon emissions during production.
2. Critical for clean energy transition and reducing dependence on fossil fuels.

Source: https://mnre.gov.in/en/notice/scheme-guidelines-for-implementation-of-strategic-interventions-for-green-hydrogen-transition-sight-programme-component-ii/