

Latest Policy developments in India on Advanced Biofuels

**LCBF – All member meeting
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Quick Update on Market status

- **Ethanol blending** has reached around **12%** on Pan India basis
- 1st 2G Ethanol plant at **Panipat(IOCL/PRAJ)** **commissioned**. Teething problems ironed out. Commercial production to begin in Sep/Oct
- IOCL – Lanzatech plant commissioned
- 2 more 2G plants will be commissioned in April and Sep 2024. 1 more in early 2025
- 2G Ethanol price announcement awaited
- **Over 50 CBG/Biomethane plants commissioned**
- Another **250** to be commissioned by **end 2023**
- Big push for **Green Hydrogen**

Ex-Citu Management of agriculture residues

- Earlier policy focus was only on in-situ management of residues
- **Crop residue management plan** for Punjab, Haryana, UP, Madhya Pradesh and NCT Delhi released by MoA&FW. States to implement
- **50% of cost of machinery as subsidy** to Farmers
- Establishment of **CRH (Custom hiring centre) – 80% of the project cost as subsidy** to rural entrepreneurs, co-operatives, SHG's, FPOs and Panchayats
- Establishment of agri. Residue **supply chain – assistance up to 65%** on approved projects
- **IEC activities and capacity building**
- Complete operational guidelines issued

CBG Off take issues – off take guarantees

- Above 4 tonnes – **Transporting in cascades to R/O** is a challenge
- Draft Pipeline policy is circulated by MoP&NG. **To spend Rs.963 Crores in 23-24 Fy to set up 2000Km** of first mile pipeline. It will support first 100 plants
- **50% of the cost with a ceiling of 25 crores** suggested
- Guidelines on plant location, CGD network planning, design, execution and monitoring finalised
- **Cost recovery by CGD companies** – guidelines drafted
- **Open access** – final decision still awaited
- Financial support and disbursal mechanism proposed

Fermented Organic Manure

- Fertiliser companies directed to market FOM
- A **comprehensive package** to farmers announced by MoF –CCEA approves **bouquet of schemes** for **improvement of soil health**
- **Rs.1451.84 crore** market development assistance announced for FOM (**Rs.1500/MT of FOM**)
- Current FOM specifications need modification to take care of following
- **Moisture content quite high in solid Bio digestate** even after liquid solid separation
- **C:N Ratio is a major issue**. Narrative has to change from NPK content to **Replacement of Organic carbon** in soil
- **Fortification of manure or PROM** could be a solution but adds on to the cost considerably

Blending Mandates

- Concept note on blending mandate for CGD Companies released
- 2023 budget announced 5% CBG mandate for all marketing organisations of Natural Gas and biogas
- Blending obligation start from CGD sector and will extend to other consumers like Fertiliser, power, refinery etc.
- Initially it will be voluntary but will be imposed from year 2024 starting at 1% and achieving 5% by 2027
- Methodology for implementation proposed already

Financing and carbon markets

- RBI guidelines recognise the sector as **priority sector for lending**
- MNRE Capital Subsidy for CBG plants: Pro-rata Rs 4.0 Cr for CBG plant of 4800 kg/day - Max. Rs.10 Cr.
- **World Bank through SIDBI extends risk guarantee to CBG plants – 1)USD 150 million IBRD guarantee 2)USD 13.76 million GEF-8 NGI guarantee to support bankability of entire Biogas value chain**
- India announces **Voluntary green credit mechanism**
- Details of the green credit implementation mechanism has been **notified on 26 June 2023**
- **Export of Green attributes** – Bilateral a Multilateral arrangements to be established is under consideration

Thank You