

# 2G BIOETHANOL

## PoC TO DEMO UNIT



- ASN Fuels is promoted by HPCL in Technical collaboration with IIT
- ASN Fuels is 2G Fuel Ethanol - R & D startup company.
- ASN Fuels is founded by Mr. G V Sumanth, BTech & Mr. D M Giri, MBA

हिन्दुस्तान पेट्रोलियम



**ASN FUELS PVT LTD**  
**Bangalore**

भारतीय प्रौद्योगिकी संस्थान तिरुपति

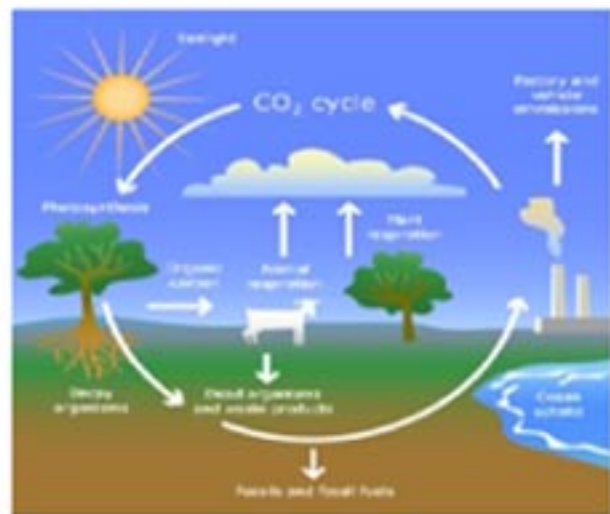


**TIRUPATI**

[www.asnfules.com](http://www.asnfules.com) : [info@asnfules.com](mailto:info@asnfules.com) : +91-8073873401



# BACKGROUND & MOTIVATION



## FOSSIL FUEL

- High GHG emission
- High Import Costs
- Leads to Smog
- CO<sub>2</sub> Emission to Air



## BIO FUEL

- 86% Reduction in GHG emission
- US\$ 5 Billion Forex Savings
- Clean Air to breathe
- Towards Sustainable Environment

# NATIONAL STATUS

- 2G Bioethanol Plants in India – Being SetUp
- 2G R&D Centres – Praj, ICT, IOCL, BPCL, HPCL etc
- Biofuel Policy of India 2018  
Rs 5000 crores allocation to set up 2G Bioethanol Plants of various innovative technologies by 2024 to meet the national need



News

# New biofuels policy allocates ₹5,000 cr for 2G ethanol plants

Our Bureau | New Delhi | Updated on May 16, 2018 | Published on May 16, 2018



Expands range of feedstock available for fuel production

The Union Cabinet on Wednesday unveiled a comprehensive biofuels policy which, among other things, allows farmers to

divert excess crop produce for biofuels production and sets aside ₹5,000 crore to help establish second-generation (2G) ethanol refineries.

The National Biofuels Policy 2018 seeks to expand the range of feedstock available for ethanol production

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# OBJECTIVES

1

**10 LPD of  
2G Bioethanol**

To demonstrate the operation of a CONTINUOUS process of 10 LPD of 2G Bioethanol by scaling up of lab scale process proposed by ASN Fuel

2

**OPEX  
< Rs 30/ Litre**

To optimize the operating parameters of the Pilot Plant to produce Bioethanol at < Rs 30 / Litre

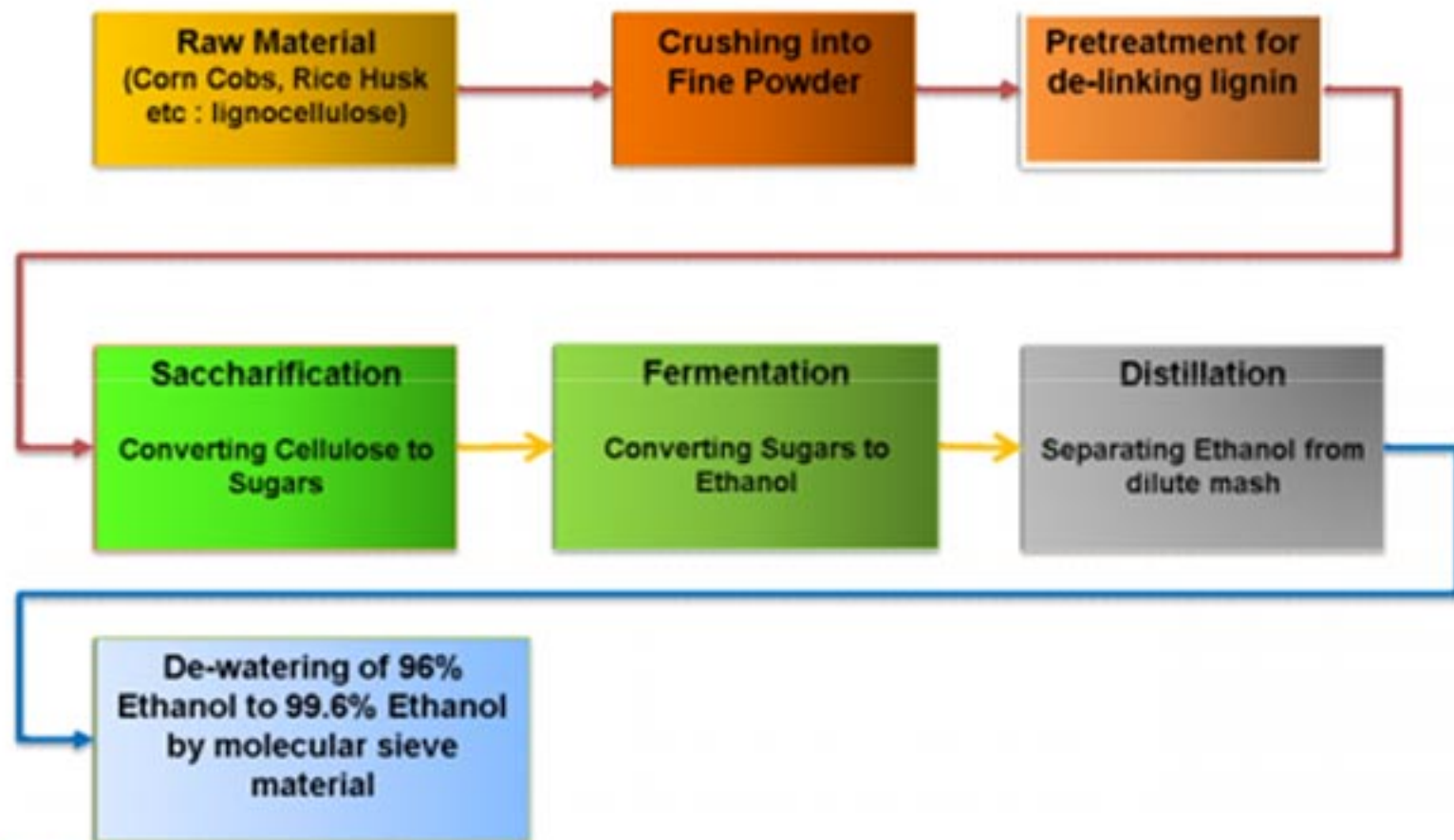
3

**CONTINUOUS  
Process**

To explore NOVEL method of CONTINUOUS process of 2G Bioethanol production in COLLABORATION with IIT Tirupati



# METHODOLOGY





# NOVELTY

- ASN Fuels filed a Patent for 2G Bioethanol production from biomass – published in Indian Patent Journal  
*( 2019-4102-5345, Journal No 29/2019, Date 19/07/2019)*
- Replace BATCH process with CONTINUOUS process of SSF & Distillation
- ZLDP – Zero Liquid Discharge Plant
- By-product of Spent biomass to be used in Paper & Pulp industry

HP



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# EXPECTED OUTCOME



**2G BIOETHANOL**  
ASN FUELS PVT LTD

01

Novel bio refinery of at least 6 Million Ltr/year capacity of 2G Bioethanol in India

02

Readiness of ASN fuels for technology transfer by end Q3 2019-20

03

Nurturing indigenous technology under MAKE IN INDIA initiative

04

Leads to achievement of biofuel policy objectives which is of critical national importance

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# BIG STORY/FUTURE STRATEGY

- Cluster Approach
  - 25-35 kLPD Scaled up Plants
  - To locate in vicinity of Rice mills/corn seed units for logistic efficiency
- 100 Plants in 5 years across the country



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# WHY ASN TECHNOLOGY ?



## 👍 Cost Advantage

₹ Capex – 50% Savings comparatively

₹ Opex - < Rs 30 / Ltr

## 👍 Return on investment in 7-10 years

HP logo



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**THANK YOU**



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