



Opportunities for Sugar/Distillery Industry in Compressed Biogas (CBG) Sector

Webinar on 'Opportunities for Sugar/Distillery Industry in Compressed Biogas (CBG) Sector' was organized by dept. of Alcohol Tech & Biofuels, Vasantdada Sugar Institute (VSI), on 2nd June 2021.

Mr. Sharad Pawar, Hon. President, VSI, & Member of Parliament (Rajya Sabha) and Mr. Dilip Walse-Patil, Hon. Vice-President, VSI, Minister of Home, GoM was the Chief Guest in the Webinar. Following members viz., Mr. Harshvardhan Patil, Hon. Ex-Minister, Maharashtra; Mr. Jayprakash Dandegaonkar, Chairman, NFCSEFL & MRSSKS Ltd; Mr. Shivajirao Deshmukh, Director General, VSI; Mr. Shekhar Gaikwad, Commissioner of Sugar, GoM; Mr. Vishal Patil, Governing Council Member, VSI; Mr. Abhinash Varma, Director General, ISMA; Mr. Prakash Naiknavare, Managing Director, NFCSEFL Ltd and Mr. BB Thombare, Chairman, Natural Sugar were present as the panelist in the webinar. The webinar was attended by 181 participants from members and non-members Distilleries and Sugar Factories.

Mr. Shivajirao Deshmukh, DG, VSI welcomed all delegates. He emphasized on the opportunities for sugar industry in the field of bio-CBG production using different feedstock. CBG has the potential to replace CNG in automotive and industrial sector. CBG plant can be operated on press mud cake (PMC) or sugarcane bagasse (SCB) or their mix throughout year which will generate additional revenue to sugar mills.

Key note address was given by Mr. Sharad Pawar. He talked about the present scenario on the current energy consumption and current imports of crude oil and natural gas in India. GoI has set a target of reducing this import by at least 10% by 2022. He informed that different renewable energy feedstocks (PMC, SCB, municipal solid waste, etc) is being promoted by GoI for the production of CBG and various schemes for CBG. He also mentioned that there is potential of 3.75 lakh ton of CBG per annum in India & 1.50 lakh ton of CBG per annum in Maharashtra with revenue of Rs.1750 crore per annum to India and Rs.700 crores per annum to Maharashtra if 50% of sugar mills will go for CBG production which will create huge employment opportunity and can boost economic development.

In the technical presentations following members were delivered talks;

Prof. SV Patil talked on circular bioeconomy for CBG and organic fertilizer production for sugar

informed about the SATAT scheme. GoI has planned to set up 5000 CBG plants by 2025 in phased manner. Ministry of New & Renewable Energy (MNRE) has declared subsidy of Rs. 4.00 crore per 4800 kg CBG per day and Rs. 10.00 Crore per project. Department of Agriculture and Farmers Welfare, GoI has notified that fermented digestate from anaerobic digester of PMC/SCB/ PMC/other agro-wastes as fermented organic manure. There are schemes for financial support for CBG Plants by State Bank of India and Bank of Baroda. He also mentioned that VSI is setting up of two pilot digesters with financial assistance from Nira Bhima SSKL for the production of biogas from PMC, SCB, sugarcane trash (SCT) and mixture of PMC, SCB and SCT.

Mr. RB Lad, Mr. Praveen Badiger and Mr. NS Mohan in their presentation discussed their digester technology for biogas production and membrane technology for biogas purification.

Mr. Sanjay Murgai, Head CBG Projects, JBM Renewables (Jay Bharat Maruti Group), Dr. AV Mohan Rao and Mr. Mohit Gupta, SERL also presented their work on CBG. They have presented data and technology in their two running plants (Warananagar, Maharashtra and Rohtak, Haryana) on PMC.

Mr. Nitin Shete, Vice President, Praj Industries Ltd. He explained the possibility of conversion of PMC, SCB and spent wash for CBG production. He also proposed a model for supply of dual fuel kits (Diesel + CBG) for truck, tractors and small 3 and 4 wheelers which can reduce 30 to 40% of transport costs. He mentioned that Praj has developed 4 key commercial technologies such as microbial consortium for feedstock pretreatment, rumen microbe's consortium for high yield and fast anaerobic digestion process, high efficiency biogas up-gradation to CBG and high quality bio-manure formulation.

Mr. Aakash Gundawar, Untied Enviro Pvt. Ltd., Pune. He explained CBG production technologies, its advantages and feedstock for CBG.

Afterwards, there was a panel discussion with Mr. Dilip Walse-Patil, Mr. Jayprakash Dandegaonkar, Mr. BB Thombare, Mr. Vishal Patil, Dr. Indrajeet Mohite, Mr. Shekhar Gaikwad, Mr. Abinash Varma, Mr. Shivajirao Deshmukh and Mr. Prakash Naiknavare.





In the concluding session, Mr. Dilip WalsePatil mentioned that given the abundance of biomass in the country, CBG has the potential to replace CNG. He also mentioned that digestate that comes out from the digester can be used as bio-manure. This will also help to replace chemical fertilizer partly with

organic fertilizer and contribute to move towards sustainable agriculture.

In concluding remarks, Mr. Shivajirao Deshmukh thanked all dignitaries and delegates present for attending the Webinar. He requested all sugar mills to come forward and take initiative in production/supply of CBG.

Oos Sheti Dnyanyag & Dnyanlaxmi

In the memory of the founder president of VSI late Padmabhushan Dr. Vasantdada Patil, VSI organised 'Oos Sheti Dnyanyag & Dnyanlaxmi' residential farmer's training program for men and women sugarcane growers of Maharashtra state. The training program was conducted as per the government guidelines regarding covid-19 pandemic disease and training batches were organised in the month of July & August 2021 as details are given in following table; In Oos Sheti Dnyanyag and Dnyanlaxmi training programmes, 296 sugarcane farmers participated from

varieties & varietal planning, seed nursery management, tissue culture, modern planting techniques, weed management, soil fertility and fertilizer management, irrigation water management, use of bio-fertilizers, farm mechanization, sugarcane economics, ratoon management and integrated disease & pest management were taken and practicals & field demonstrations conducted by subject experts of different Sections/Dept. of Agriculture Divisions of VSI.

Batch No.	Period	Area from which the farmers participated	No. of participants	Number of Sugar Mills & Individuals
Oos Sheti Dnyanyag programme (Men farmers)				
I	5 th to 8 th July 2021	Kolhapur District and Vidarbha region	58	Sugar mills – 04 Individual – 02
II	13 th to 16 th July, 2021	Sangli and Satara Districts	63	Sugar mills – 05
III	20 th to 23 th July, 2021	Pune, Ahmednagar and Nashik Districts	50	Sugar mills – 03 Individual – 06
IV	27 th to 30 th July, 2021	Solapur District and Marathwada region	51	Sugar mills – 04 Individual – 03
V	10 th to 13 th August, 2021	Marathwada region (Special batch)	40	Sugar mills – 02 Individual – 05
Oos Sheti Dnyanlaxmi programme (Women farmers)				
VI	3 rd to 06 th August, 2021	Sangli, Satara and Solapur Districts.	34	Sugar mills – 04
Total participants (Women +Men)			296	Sugar mills – 18 Individual – 16

different parts of Maharashtra. Out of total sugarcane farmers, 16 sugarcane farmers participated individually and 18 were sponsored by the sugar mills. Each batch of training was inaugurated by the representatives from participated farmers and welcome address was delivered by the training coordinator. Lectures on various topics like sugarcane

In the final session of every batch, the trainees got their doubts cleared from the subject experts. In the concluding function, the representative trainee farmers expressed satisfaction about the training, lodging and boarding facilities. The certificates along with group photos were distributed to the trainees.



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