



**PROJECT CONSULTANCY -  
IN DEPTH PERSPECTIVE BY  
SMB ENVIRONMENTAL PROJECTS  
(P) LTD. – NAGPUR**

26 March 2012

SMB ENVIRONMENTAL PROJECTS (P) LTD. -  
NAGPUR - INDIA MOB : +91 9860240852



## **1. FIRST AND MOST IMPORTANT STEP**

# **VISUALIZE A PROJECT**



## **2. SELECT A COMPETENT CONSULTANT**

### **SIGN A MEMO OF UNDERSTANDING FOR SINGLE POINT RESPONSIBILITY**



### **3. CLIENT & LOCATION REQUIREMENTS**

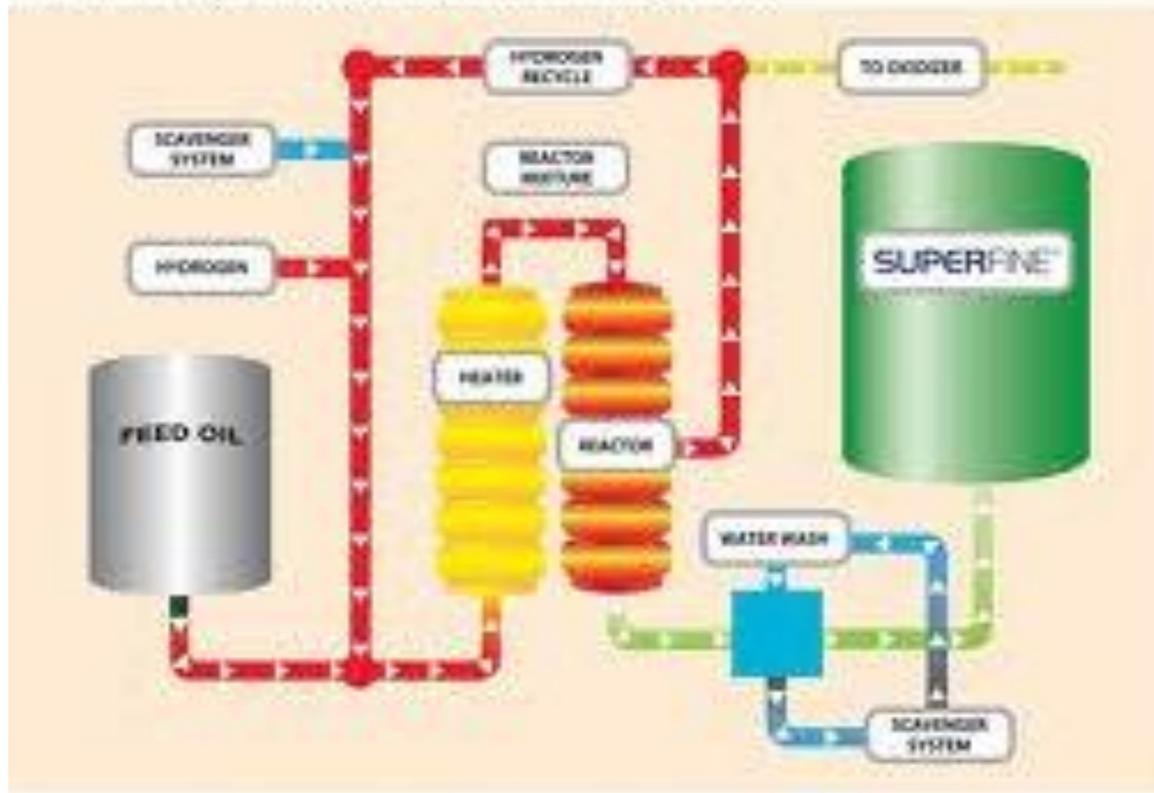
**GATHER ALL LOCATION AND  
CLIENT SPECIFIC INFORMATION**



## **4. PROJECT PLANNING**

**A BROAD OUTLINE AND BASIC ASPECTS OF THE PROJECT IS ADEQUATE AT THIS STAGE BEFORE COMMENCING THE DETAILING**

## The Patented Hydrodec Hydrogenation Refining Process



## 5. SELECTION OF TECHNICAL KNOW HOW AND TECHNOLOGY

TECHNICAL TIE – UP WITH TECHNOLOGY SUPPLIER OR  
PROCESS LICENSOR MAY BE NEEDED IN CERTAIN  
PROJECTS

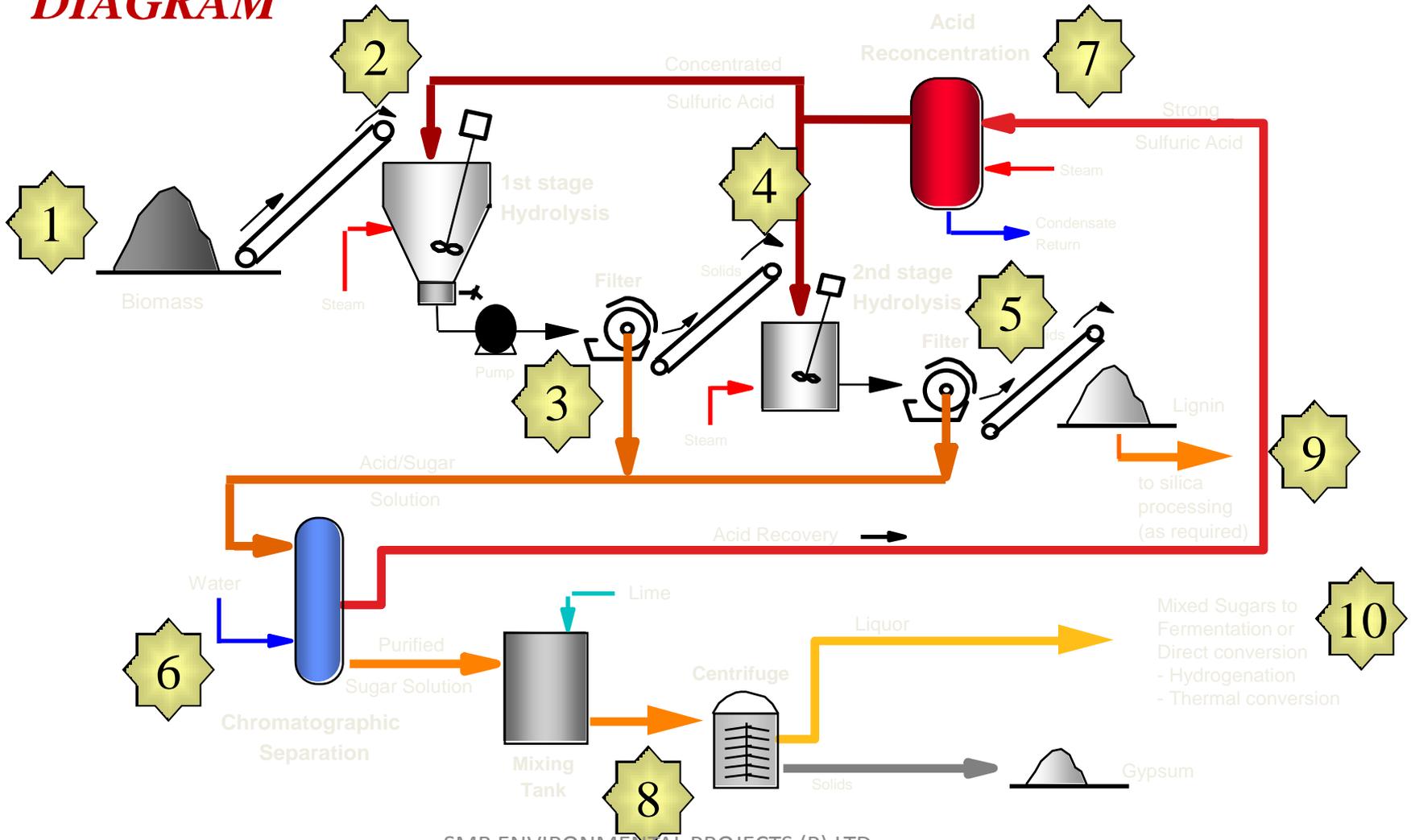


## **6. Environmental Impact Assessments**

**The project must meet all prevalent Pollution Control limits – Be it Air, Water or Solid waste**

# 7. PROCESS FLOW DIAGRAM

Conversion of Cellulose / Hemi-cellulose to Mixed Sugars  
Using Process Technology of Concentrated Acid Hydrolysis





## **8. PLANT LAYOUT**

**LEADS TO EXACT ESTIMATION OF LAND  
REQUIREMENT FOR PRODUCTION FACILITIES**



## **9. EQUIPMENT SPECIFICATIONS**

**VERY IMPORTANT FOR NEXT STEP OF  
DETAILING AND COSTING AND LATERON FOR  
TENDERING / ORDERING**



## **10. DETAILED ENGINEERING**

### **IMPORTANT AND PRACTICAL ASPECTS TO GET REALISTIC COST ESTIMATE**

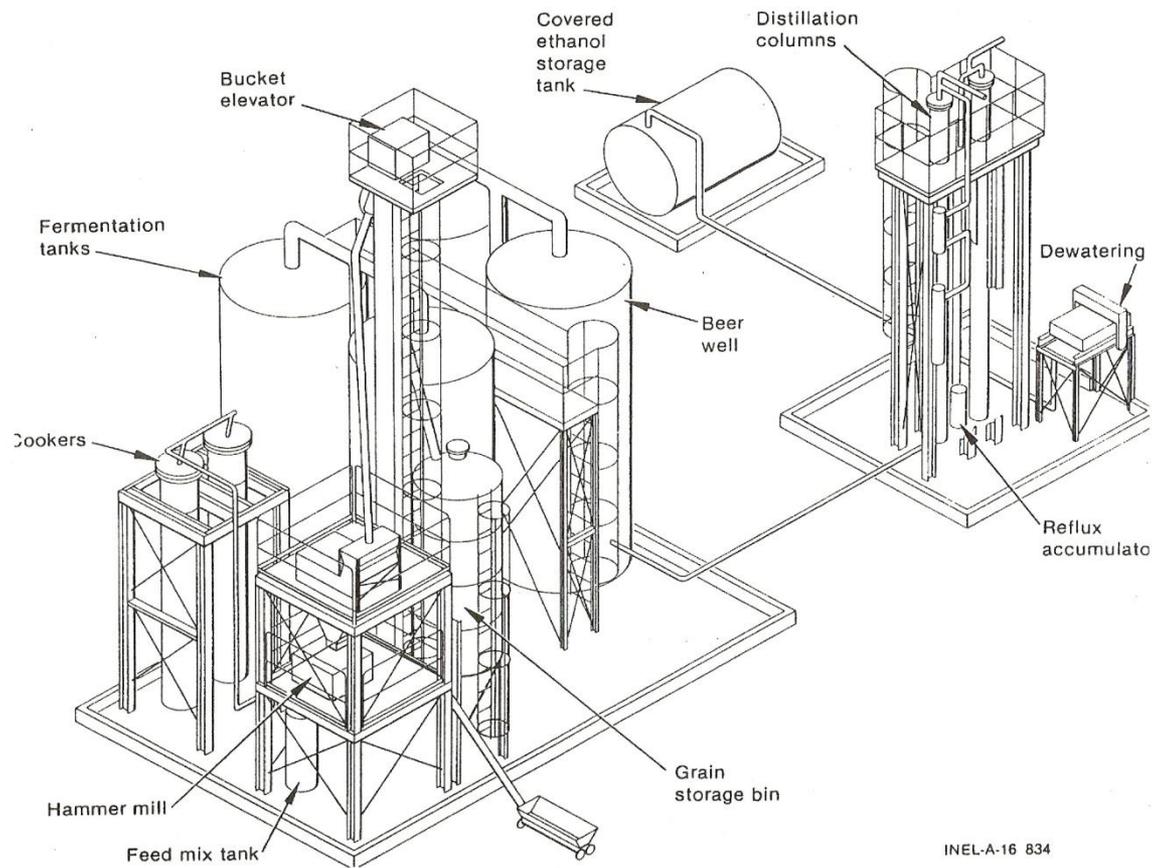


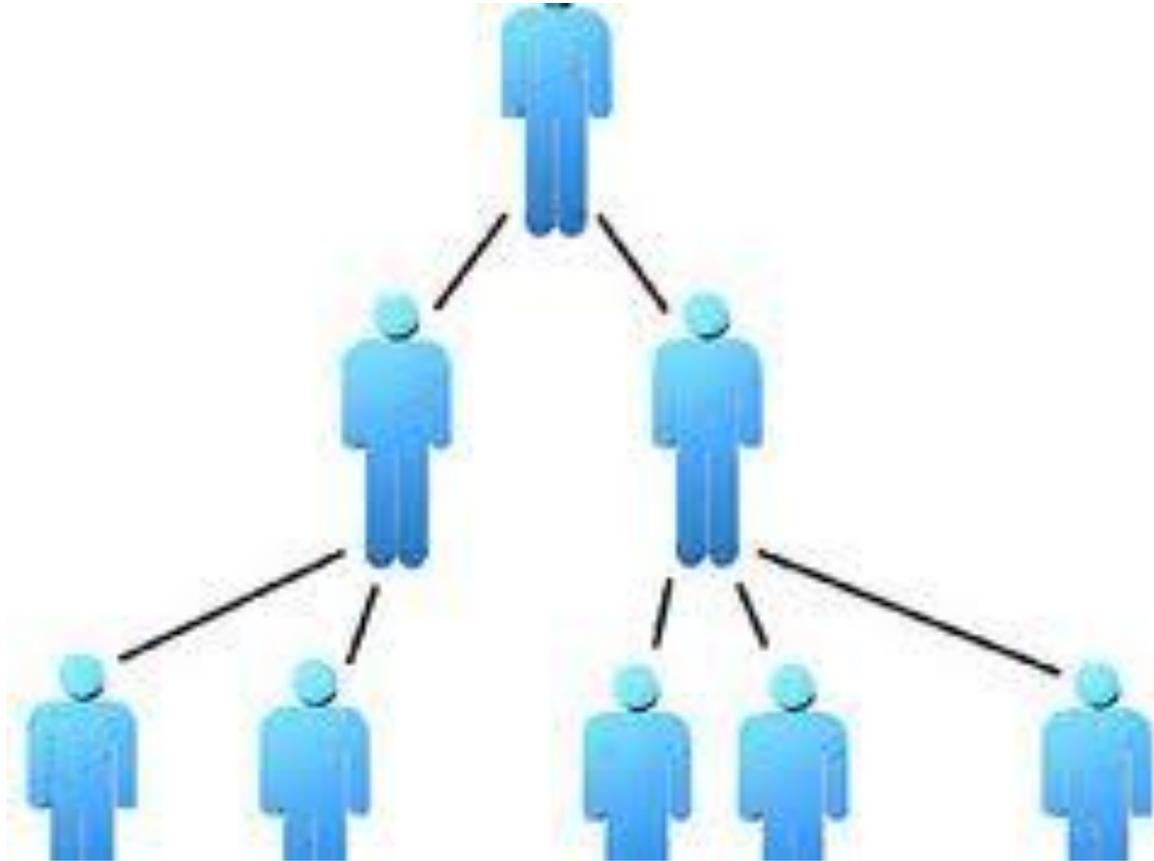
Figure Schematic layout of the Small-Scale Fuel Alcohol Plant

**11. PLANT & MACHINERIES AND ITS DETAILED ENGG.  
 ENABLES TO GET SUCH AN OVERVIEW THOUGH STILL  
 ON PAPER**



## **12. LAND AND BUILDING**

SHOULD INCLUDE INFRASTRUCTURAL FACILITIES  
LIKE ELECTRICAL POWER, WATER STORAGE, FIRE  
FIGHTING, SECURITY MEASURES ETC.



## **13. MANPOWER REQUIREMENT**

**UNSKILLED, SEMI SKILLED, SKILLED, SUPERVISORY  
AND MANAGERIAL MANPOWER TO BE DETERMINED**



## 14. OPERATING EXPENSES

INCLUDES UTILITIES, POWER, MANPOWER AND  
OTHER VARIABLE COSTS



## **15. COST ESTIMATION & CASH FLOW**

**WITH DETAILED ENGG. DONE, IT IS EASY  
TO GET REALISTIC COSTING AND HENCE  
PROFITABILITY / CASH FLOW COMPUTATION**

# 16.1 PROJECT REPORT

1. EXECUTIVE SUMMARY
2. INTRODUCTION
3. QUALITY STANDARDS
4. MARKET & EXPORT POTENTIAL
5. BASIS & ASSUMPTIONS
6. PRODUCTION & TECHNICAL ASPECTS
7. PROJECT FACILITIES & COST ESTIMATION
  - 7.1 Land & Building
  - 7.2 Plant & Machineries
  - 7.3 Pollution Control & Energy Conservation

# 16.2 PROJECT REPORT

8. **COST SUMMARY & OPERATING EXPENSES**
9. **FINANCIAL ANALYSIS ( Projected cash flow )**
10. **SENSITIVITY ANALYSIS (Effect of price variations**
11. **LATEST PLANT & MACHINERIES SUPPLIERS**
12. **HOW TO SET UP AN INDUSTRIAL ENTERPRISE**
13. **GOVT. POLICIES AND INCENTIVES FOR EOU**
14. **TAXATION – PROVISIONS & BENEFITS**

## 16.3 PROJECT REPORT

**15. SSI - IMPORTANT PROVISIONS**

**16. THE FACTORIES ACT**

**17. THE INDUSTRIAL ESTABLISHMENT ACT**

**18. THE MINIMUM WAGES ACT**

**19. FINANCING ARRANGEMENTS**



**17. A DETAILED PROJECT REPORT**  
**HERE IS A MASTER PLAN NOW**  
**AVAILABLE WITH YOU**



## **18. FINANCIAL APPROVALS**

**ARRANGE FROM OWN SOURCES, PROMOTERS OR FINANCING INSTITUTIONS, PRIVATE EQUITY PLACEMENT IS PREFERABLE TO**

**AVOID INTEREST COMPONENT**

SMB ENVIRONMENTAL PROJECTS (P) LTD. -  
NAGPUR - INDIA MOB : +91 9860240852



## **19. PROJECT MONITORING**

**AN IMPORTANT ASPECT IN IMPLEMENTATION TO  
CONTROL COST AND TIME OVER RUN**



## **20. ORDERING INDIVIDUAL EQUIPMENTS**

**TENDERING, ORDERING AND CLEARING DISPATCHES  
FROM THE  
SUPPLIERS' WORKS**



## **21. PLANT ERECTION**

### **EITHER A TURN KEY CONTRACT OR SECTION – WISE**



## **22. PROJECT EXECUTION**

### **THE SKY LINE CHANGES ON THE SITE**

26 March 2012

SMB ENVIRONMENTAL PROJECTS (P) LTD. -  
NAGPUR - INDIA MOB : +91 9860240852



**23. THE PROJECT IS COMMISSIONED**  
**THE DREAM COMES TRUE**

26 March 2012

SMB ENVIRONMENTAL PROJECTS (P) LTD. -  
NAGPUR - INDIA MOB : +91 9860240852