

RENEWABLE ENERGIES BIOMASS Training Course

TR1616/IO2/003

APPLICATION FIELD - TARGET GROUP

Study of general knowledge of energy sustainability and renewable energy sources.
Introduction to Biomass Energy generation and utilization: survey on components, devices, system characteristics, management and control, maintenance.
Simulation and exercising in laboratory of various systems with training units utilization.

The training module is devoted to improve the basic knowledge of field technical persons with refreshing of the know-how and verification of learning results.

TOPICS

Introduction to Energy sustainability – Renewable energy sources
Generality on Biomass Energy – historic uses – modern uses- power maps
Biomass gasification- parameters and products – gasifiers devices and components- maintenance.
Biogas anaerobic digestion – products and control of process – components and maintenance.
Bioethanol and Biodiesel production – products and control of process- components and maintenance.
Simulation and exercising of various systems with training units utilization

SKILLS

Basic knowledge of Biomass Energy technology applications including first intervention maintenance of systems and devices.

DURATION

56 hours

SESSION OF COURSE

Classroom:
Intro & General: 2 session of 4hrs each.
Gasification & Biogas anaerobic: 4 sessions of 4 hours each
Bioethanol & Biodiesel production: 4 sessions of 4 hours each

Training Units:
4 sessions of 4 hrs each

ENTRY REQUIREMENTS FOR PARTICIPANTS

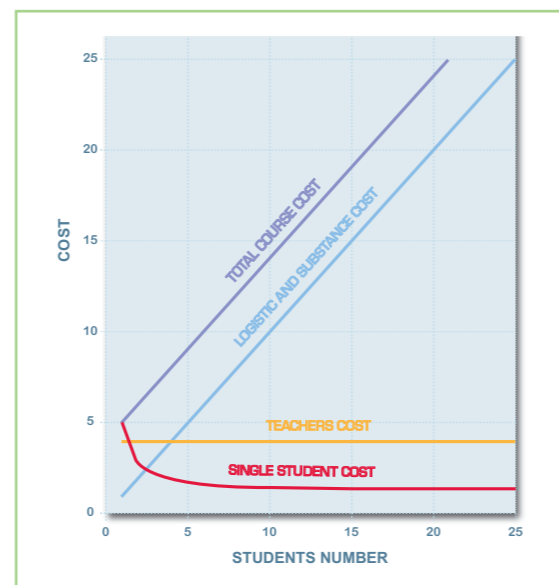
Vocational schools of high schools diploma of electrical or mechanical sciences. Null or short employment experience.

MAXIMUM NUMBER OF STUDENTS PARTICIPATION

As you may see from the diagram, the costs of the course have their best efficiency with a number of participants ranging from 10 up to 25 units.

It is consequently suggestible to perform a teaching course with a minimum of 8 students up to a maximum of 25.

The diagram on the side is only indicative



LABORATORIES / TOOLINGS / INDIVIDUAL EQUIPMENTS



Educational and training equipment for Biomass Energy



Set of instruments and tools



TEACHING & LEARNING MATERIALS / ASSESTMENTS METHODS / CERTIFICATES



- Theory manuals,
- Workbooks,
- Users manuals.
- Schematics presentations and tables.



Evaluation questionnaire at the end of the course



Certificate of attendance at the end of course



RECEPTION PACKAGE

WELCOMING SERVICES FEES:

- Visa issuing, consular expenses for entrance to Italy and residence permit (issued by Ministry of Interior Affairs) for study purposes
- Flight ticket to Italy and return

BOARDING AND ACCOMMODATION SERVICES

- Reception at the organized lodging facilities hotel
- Board including: breakfast, lunch and dinner, drinks included

TRAINING COURSE ANCILLARIES SERVICES:

- Laundry service
- Daytime service of fixed telephone through operator at Prodit premises
- Mobile prepaid telephone service - 50 Euro/month for each student
- Shuttle service from hotel to Prodit Engineering training center and return;
- Service of initial care for illness or injuries, available during the course time;
- Individual ordinary life and accident insurance, and national health service

TRAINING COURSE PACKAGE

DIDACTIC ACTIVITIES for 5 (five) days per week, as follows:

- Theoretical activities performed in classroom
- Practical activities performed in workshops and laboratories, equipped with didactic equipment
- Individual endowment for the student made up of text books, stationery and backpack
- Periodical tests for assessing student's learning
- Final examination
- Attendance Certificate (issued on the basic requirement of a minimum percentage of participation hours, equal to the 95% of the whole duration of the course)



COURSE LOCATION

These courses will be held at PRODIT ENGINEERING training center in Italy.