**Electrical Energy**

**(EE12)**



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| **Fact Sheet EE12: Use renewable/sustainable energy solutions such as on-grid/off-grid PV systems, biogas digesters on premises for electricity generation** |
| **Overview** |
| *Objective* | Reduce total energy consumption and use sustainable and renewable energy solutions |
| *Action* | Use renewable and sustainable energy solutions such as on-grid/off-grid PV systems, biogas digesters for electricity generation |
| *Key Challenges* | * Raising awareness and technical capacity
* Selection of suitable technology
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| **Process** |
| *Complexity* | High, technology selection, system design and engineering, installation |
| *Equipment & Material*  | New equipment to be installed according to selected technology |
| *Human Resources* | Maintenance and engineering department personnel, system contractor |
| **Considerations** |
| *Regulatory Aspects* | On-grid Electricity regulations |
| *Economic*  | High CAPEX, high OPEX and high expected net annual savings |
| *Advantages* | Sustainable solution, renewable and clean source of energy |
| *Disadvantages* | * High initial investment
* Relatively complex know how required for efficient operation
* Economic aspects depend on the exact technology to be used
* A detailed study is required before implementation
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| **Impacts** |
| *Environmental* | Pollution reduction by avoiding CO2 emissions or using sustainable energy sources |
| *Employment Opportunities* | None |