Quality plan

* An overview or introduction of the project or process detailing the background, need, scope, activities, and important dates or deadlines
* The organizational structure or org chart detailing necessary team members, including external vendors
* Each team member’s responsibilities and qualifications necessary to fulfill stated duties
* Work verification (e.g., who is responsible for carrying out a task, as well as who is responsible for checking the work)
* Supplier standards (e.g., specify the standards the prospective suppliers must meet before they can bid on a contract, such as [ISO 9001:2015](https://asq.org/quality-resources/iso-9001))
* A list of qualified suppliers
* Testing parameters
* Performance standards and how performance will be documented
* Acceptance criteria
* Deliverables
* A feedback mechanism for internal and/or external customer feedback
* Quality control procedures
* [Audits](https://asq.org/quality-resources/auditing)
* Training (e.g., overview, job-specific, or refresher training)
* Corrective action and preventive actions, including the person(s) responsible for CAPA
* Suggested corrective action
* Required notifications
* Any references or related materials, including performance ratings or performance reports

Requirement

To be of practical use a source of renewable energy needs either to be easily integrated into the national grid or situated near users so it can be used on a stand alone basis. An ideal power station should have the following characteristics:

1. Constant availability

2. (Low cost) reserve energy store to smooth input variations

3. Rapid response to changing demand

4. An input which matches annual variation in demand

5. Predictable supply i.e. no sudden and/or unpredictable changes in input

6. A location which does not require long transmission lines and/or is close to large users.

7. High reliability and low maintenance requirements

8. Long life time

9. High efficiency.

Impacts

• Emissions of greenhouse gases (carbon dioxide and methane), resulting in global climate change and sea level rise, as well as possible threats to food security and biodiversity.

• Emissions of acid rain gases (nitrogen oxides and sulphur dioxide)

• Noise

• Visual intrusion

• Destruction of habitats and ecosystems

• Creation of employment or job losses • Population displacement

• Air, soil and/or water pollution

• Resource depletion • Soil erosion

• Reduction in water quality

• Reduction of food security, including by displacing food crops and/or by increasing prices.

Parameters

• Electrical Performance

: Real power, kW

• Apparent power, kVA

• Reactive power, kVAR

• Power factor, %

• Voltage total harmonic distortion, %

• Current total harmonic distortion, %

• Frequency, Hz

• Voltage, V

• Current, A

• Electrical Efficiency

: Real power production, kW

• External parasitic load power consumption, kW

• Ambient temperature, oF

• Ambient barometric pressure, psia

• Fuel LHV, Btu/scf

• Fuel consumption, scfh

• CHP (combined heat and power) Thermal Performance

:Thermal performance in heating service, Btu/h

• Thermal efficiency in heating service, %

• Actual SUT efficiency in heating service as the sum of electrical and thermal efficiencies, %

• Emissions Performance

• NOX and CO2 Emission Offsets

Planning permission

https://www.north-ayrshire.gov.uk/planning-and-building-standards/ldp/ldp.aspx