

### 18.3 Equipment Specifications

The equipment specifications should be divided into convenient sections based on units of procurement or manufacture. If an item of equipment or plant, for example, antennas, cables, generator sets may need to be procured in the future, outside of the contract, then a relatively self-contained specification section should be developed for this item. If a type or class of equipment is typically manufactured by a single manufacturer, then a relatively self-contained specification section should also be developed for this. For example, a battery manufacturer usually does not make chargers and vice versa. Divisions along these lines give flexibility in arranging and reusing the specifications, and it also helps the contractor in dividing the work to subcontractors.

If the technical requirements are written to include engineering design and system performance requirements (for a turnkey contract) and if the Scope of Work defines the equipment quantities and locations, then the equipment specifications can be written as simple procurement-only specifications. This is often a good idea, because it usually simplifies revisions to the scope of the contract and it also makes reuse of the equipment specifications convenient.

Typically, each equipment specification should be divided into major sections such as the following:

- Scope,
- References,
- Environmental Conditions/Requirements,
- Functional/Operational Requirements,
- Physical/Mechanical Requirements,
- Electrical Power Requirements, and
- Performance, including parameters, units, and how they are measured.

Usually, equipment specification clauses can be divided into mandatory requirements, desirable requirements, and information requests.

**Mandatory Requirements.** A mandatory requirement is a minimum functional capability or performance specification that must be met or exceeded. Failure to achieve these requirements may be cause for rejecting the bid.

Mandatory requirements can include options that must be offered by the bidder but whose acceptance is the purchaser's option.

**Desirable Requirements.** Desirable requirements are preferred functional capabilities or performance specifications that will be favoured in the evaluation, but are not considered essential. These could be considered bidder options. The bidder should be requested to state whether compliance is inherent in his product or whether it can be added as an option at extra cost.

**Information Requests.** Information requests are generally made in regard to secondary capabilities or performance specifications. The information is usually requested to help evaluate the bid and to ensure that full specifications are divulged. The full specifications are needed from the successful bidder because, in addition to meeting the mandatory requirements, his work should be accepted against these other specification parameters and performance levels.

### 18.4 Supporting Information

Supporting information includes all associated data that bidders need to prepare responsive proposals. The following list identifies typical items:

- maps,
- climatological data and statistics,
- detailed interface descriptions for existing facilities,
- path profiles,
- site plans, and
- soil reports.