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**FOUNDATIONS**

The stub columns are fixed exactly in their designated locations and are secured to avoid their displacement during concreting.



◀ **LATTICE TOWER**

The lattice tower is ready to receive isolators before the cable stringing process can start.

The tower elements are painted as per the client's colour code.

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**TOWER LINES**

Routes for tower lines are pushed towards the mountains, away from settlements, clearing thus further areas to be used for land development.

This rule applies to new lines as well as to relocated ones.

**TOWER ASSEMBLY**

The labelled tower elements are imported in containers and assembled on site.

Large sections of towers are joined on the ground and then lifted onto final position with cranes.



**132 kV - OVERHEAD LINES**

With the development and progress, power supply and demand grow at the high rate of 11-12 percent annually in the Sultanate of Oman.

This represents a challenge on both power generation and power transmission.

A national grid already covers and connects main metropolises. Frequently, the grid has to be pushed away from settlements to find that the only possible routes are the mountains.

Sarooj built the foundations for nearly 1000 km of 132 kV lines and 220 kV lines.

In this project, access roads and logistical support represented the main difficulties. Rock anchoring and grouting techniques were used to secure the foundations in rocky areas.

In loose or soft ground, we reverted to the more conventional method known as 'pad and chimney' type foundation.

In each location the ground electrical resistivity was measured for the purpose of providing an adequate earthing system for towers and lines.

Shut down for final connections were coordinated closely with the client.

They were done systematically during the winter season when the power demand was low.

Temporary roads were maintained to give access to the towers.

**WORKING AT HEIGHT**

During isolator installation and cable stringing, technicians work at height.

They should be well harnessed and firmly anchored.

