

CUSTOMER PROFILE:

- Private company
- International service provider to energy authorities and municipalities

CUSTOMER CHALLENGES:

- Finding quality tower products at a good price
- Subsurface engineering concerns including the potential of old foundations and a high water table
- Equipment needed to be adaptable to site conditions
- Short installation period
- Logistics of installation in remote location

RESULTS:

ARE designed, manufactured and delivered a foundation/tower system that met all challenging project criteria and was installed as planned, on schedule and with ease.



CASE STUDY – AFS 1500 INSTALLATION

OVERVIEW

ARE was employed to provide design consulting, manufacturing, logistics and installation of four patent-pending Assembled Foundation Systems (AFS) with monopoles for a wind power project in coastal French Guiana, South America.

SOLUTION

The ARE design team created an AFS 1500 ballasted foundation that would support a 100 foot wind tower with a 20kW Hummer wind turbine. Due to the unknown soil conditions of the site, the foundation and monopole solution was designed to:

- Utilize flexible, repositionable and re-usable equipment
- Accommodate below grade installation requiring no concrete or cure time
- Leverage local soil fill for ballast
- Exceed the wind requirements for tower and turbine stability

Additionally, the solution was installed and ready for a turbine in one day. Due to limitations of equipment and local labor ARE provided logistics and on-site technical installation support including training a small labor force for future installations.



Unloading the Foundation



Setting the Foundation King Post



Setting the Foundation Stringers



Foundation Placed and Tower Attached



Backfilling and Compacting Local Soils



Foundation Backfilled and Ready for Turbine