THE ANORRA™ & ANORRA™ 1.4

ASSEMBLY AND INSTALLATION

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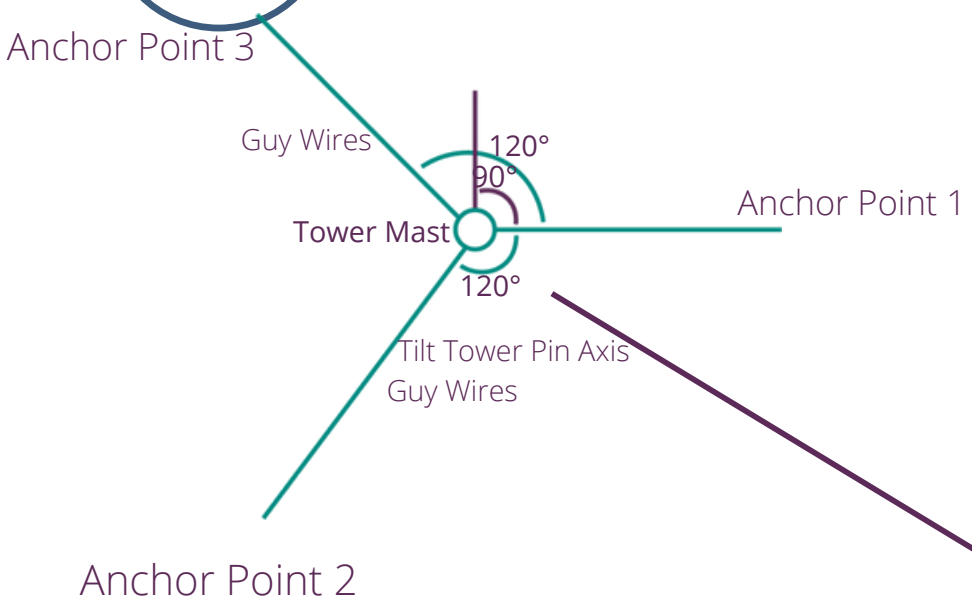
1 PREREQUISITES

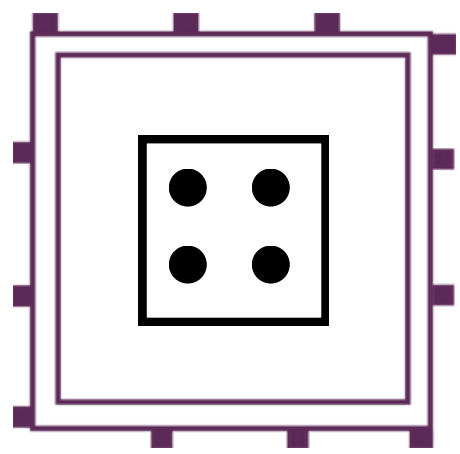


SELECT LOCATION FOR TOWER AND ITS BASE

Before you begin assembly and installation of the Anorra,™ it is important to identify a location for the tower and its anchors. Make sure you have the tower height to then calculate the space to assemble the tower horizontally before it is raised. See the diagram to the left for the footprint of the tower. More resources for location selection can be found on the last page.

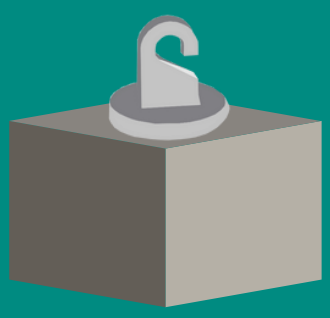
CONSTRUCT TOWER BASE

Once, the tower base location has been established from the previous step, it is time to construct the base of the tower. Depending on the ground conditions at the location, the base will be constructed differently. Standard tower base would reflect 4ftx4ftx1ft constructed with 4000psi and stronger reinforced concrete. Customers will also be provided an instructions manual on how to install the tower provided by BES



Earth Anchors

Bedrock Anchors



Concrete Anchors

MARK ANCHOR LOCATION

Depending on the soil conditions at the anchor points, there are different anchoring options. Given the location, it may be necessary to have a combination of the various anchor types.

Earth Anchors

Depending on the soil type at each anchor point, the type of earth anchor may differ.

Bedrock Anchors

These anchors are used to anchor into bedrock at the location of the anchors.

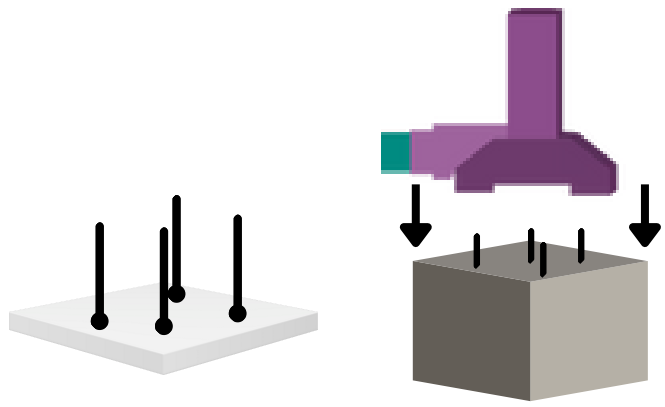
Cure in place Anchors

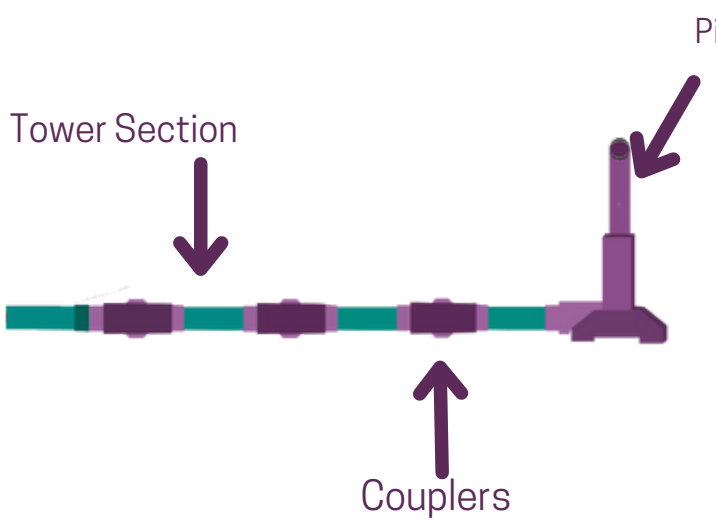
For locations where earth or bedrock anchors cannot be used, cure in place anchors are a good choice.

ASSEMBLY

ASSEMBLE AND ATTACH PIVOT BASE

Place concrete anchor assembly into wet concrete in the direction that the tower will be lifted. Wait 30 days for concrete to fully cure. Finish assembling the pivot base and insert the gin pole into the square tube.



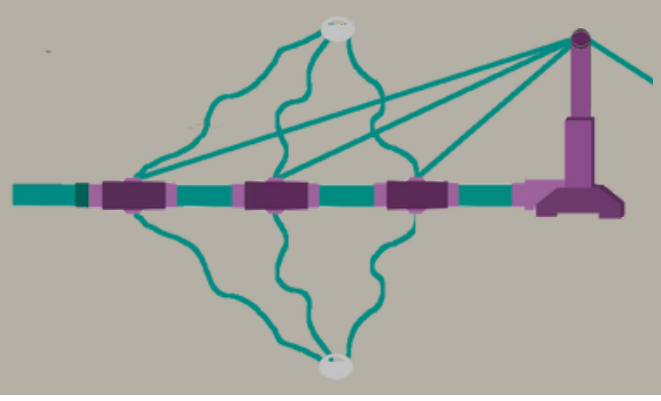


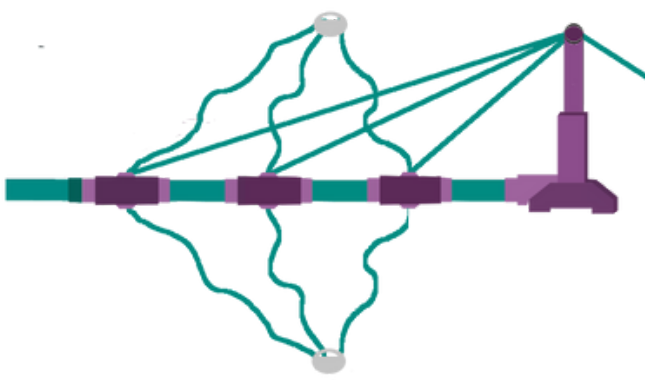
BUILD TOWER HORIZONTALLY

Starting from the tower base, begin putting together the tower sections to reach the proper height. This is done horizontally and raised once the turbine is attached. While assembling the tower pieces, electrical cables are run through to connect to the turbine later on.

ATTACHING GUY WIRES

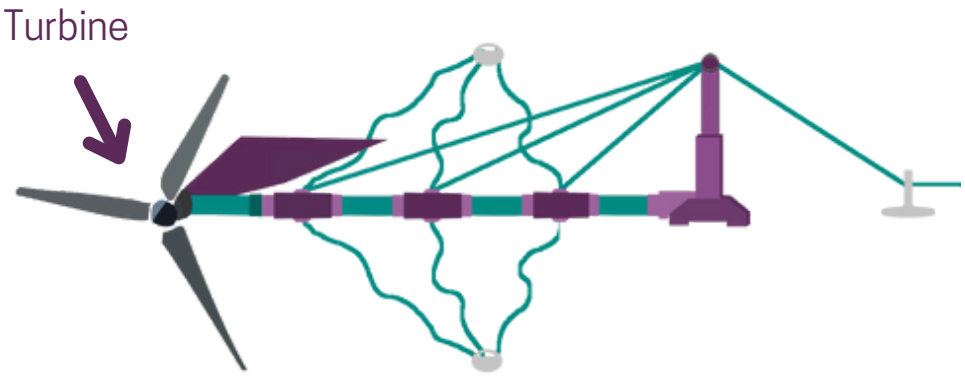
Once guy wires are measured and cut to the appropriate length, they are attached to the couplers of the tower. The wires are attached to Anchor Points 2 and 3 while the wires for Anchor Point 1 are fed through the gin pole, anchor, and into a winch or vehicle hitch.





COMPLETE A TEST RAISE

Using a winch, tractor or pickup truck and the guy wires from Anchor Point 1, complete a test raise of the tower before attaching the turbine. This is to ensure the proper configuration of anchors and wires while confirming stability. Once complete, lower the tower with the winch or vehicle to attach the turbine and complete installation.

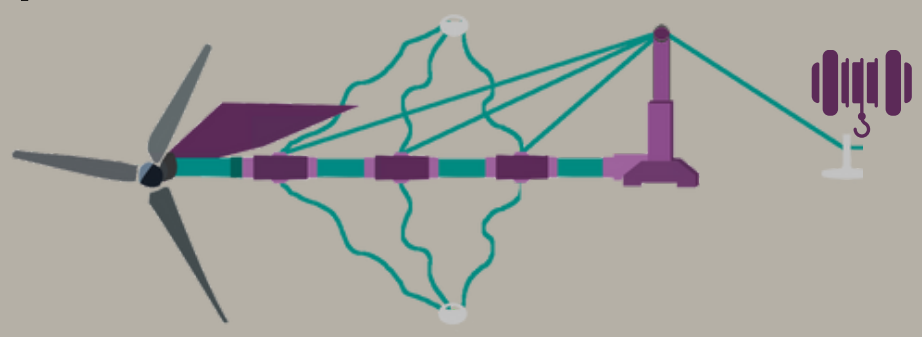


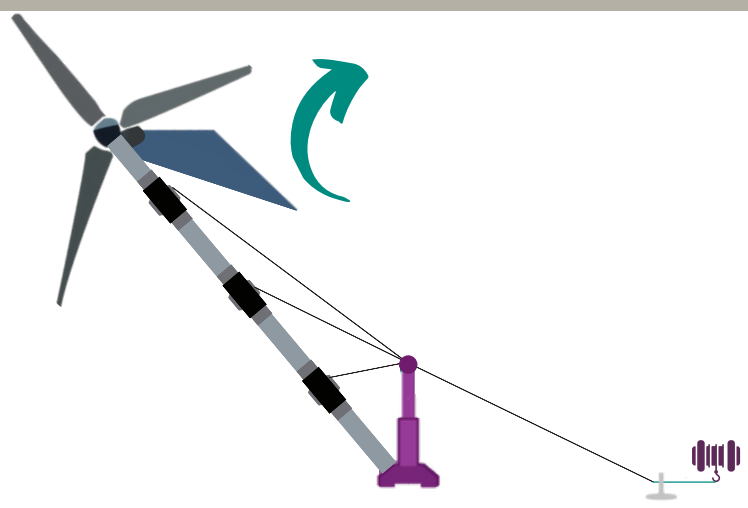
ATTACH TURBINE TO TOWER

Once the tower is built to the proper height, attach the turbine. In doing so, the electrical wire connection is also made.

COMPLETE TURBINE ASSEMBLY

The Anorra™ comes almost completely assembled, you just need to add the final touches. Attach the blades to the turbine hub, and the furling system to the turbine frame. The turbine is now ready to be lifted by the tower.





RAISING THE TOWER

Using a winch or vehicle hitch and the guy wires from Anchor Point 1, the tower is raised. Once secure, the gin pole and winch are removed. Connections to electrical systems can now be made!

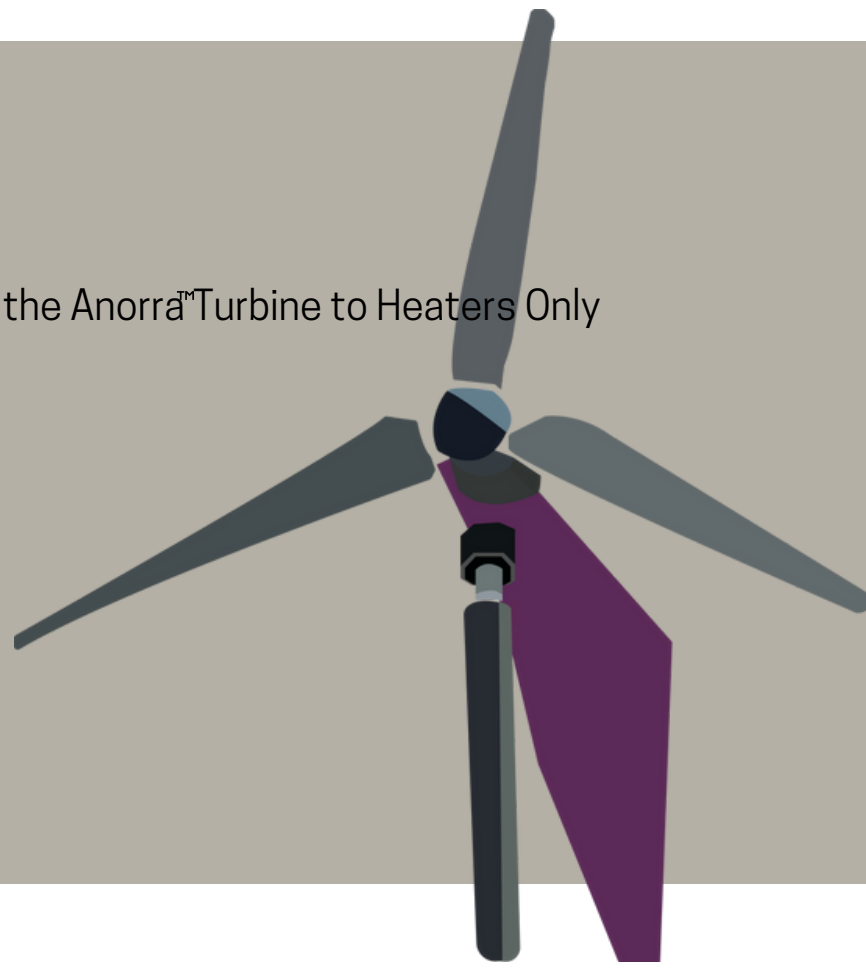
See more raising options here: Raising and Lowering of the Anorra™

Note:

A full assembly manual to support the assembly and installation of the tower is provided by BES

MORE RESOURCES:

Selecting the Perfect Location
Anorra™ Tower Footprint
Selecting the Right Tower Height
Connecting the Anorra™ Turbine to Heaters and Batteries Connecting the Anorra™ Turbine to Heaters Only
The Benefits of Distributed Energy Resources
Turbine Noise Explained
Microgeneration 101
Electrical Grids 101: Micro, Nano, and Utility
Wind Power 101
The Anorra™ Infographic
Anorra™ Product Specifications and Features
Meetings Canadian Standards
Warranty Information for the Anorra™



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