COMPOSITIONAL FRAMEWORK & ENERGY OUTPUTS

The spires are composed of lightweight glass fiber reinforced plastic and are supported by filament-wound fiberglass poles. Spires consist of three different sets of dimensions, either 15m, 25m, or 45m in height, and varying in width from 6.5m to 11m. Assuming the Copenhagen average wind speed of 5.5 meters/second and a designed output of approximately 1,020 kWh/meter/year, the 15m spire generates 15,300 annual kWh, the 25m generates 25,500 annual kWh, and the 45m generates 45,900 annual kWh, thus the total annual kWh for the site is 285,600 kWh. There are 10 spires on this site, with three 15m spires, four 25m spires, and three 45m spires. The spires rotate in accordance with the local seasonal wind patterns, with output energy being transferred to the city grid.



3 ROTATIONS OF SPIRE X AREA OF 1 ROTATION =
ENERGY OUTPUT IN KWH
(ASSUMING COPENHAGEN AVG. WIND SPEED OF 5.5
M/SECOND)

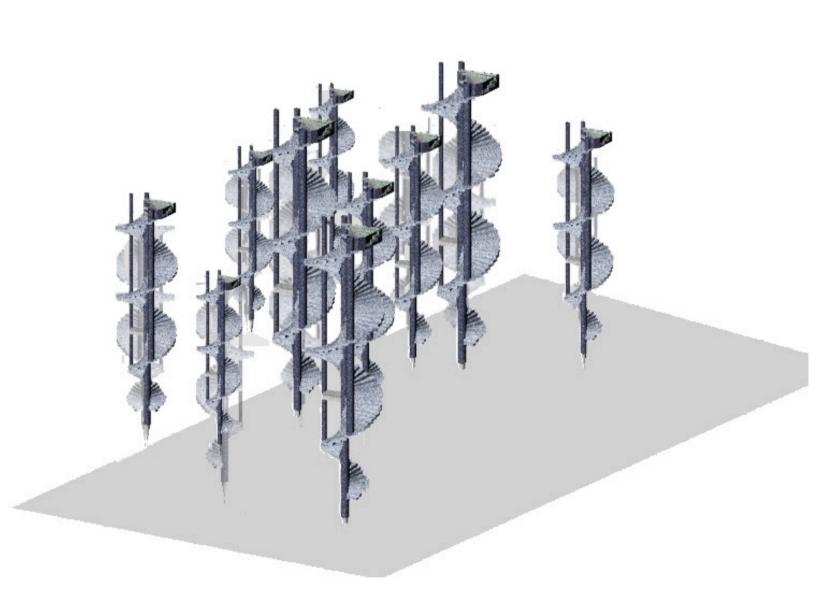
3 VARYING SIZES OF WIND SPIRES
GENERATE VARYING LEVELS OF
ENERGY OUTPUT

15M = 15, 300 KWH/YEAR

15IVI = 15, 300 KWH/ 1EA

25M = 25,500 KWH/YEAR

45M = 45,900 KWH/YEAR



THERE ARE 10 WIND SPIRES OF VARYING SCALES ON THE SITE, TOTALING AN ENERGY OUTPUT OF ≈ 285,600 KWH/YEAR

