

# LAGI 2019 - Abu Dhabi Land Art Generator

Renewable energy can be beautiful

A man made water fall which flows into a concrete water way which is 3.0m wide and 2.5m deep and is sloped over 15.0m At the end of the water way is the vortex the micro hydro power in which the water flows to produce the electricity. In this design I have proposed the largest vortex there is to try and achieve the maximum electricity possible.

	Model A	Model B	Model C
Max Basin Diameter [m]	3.92	5.3	6.91
Min Basin Diameter [m]	3.32	4.51	5.84
Basin Height [m]	up to 4	up to 3.5	up to 3
Weight Core Unit [kg]	940	1330	1880
Max dimension of Core Unit: w x h x l [m]	2.63 x 5.96 x 2.64	3.53 x 5.86 x 3.54	4.70 x 6.38 x 4.71
Head Range [m]	1.55 - 4	1.55 - 3.0	1.8 - 3.3
Flow Range [m3/s]	1.2 - 3.0	1.6 - 3.6	2.0 - 5.8
Power Range [kW]	10 - 55	12 - 55	16 - 100

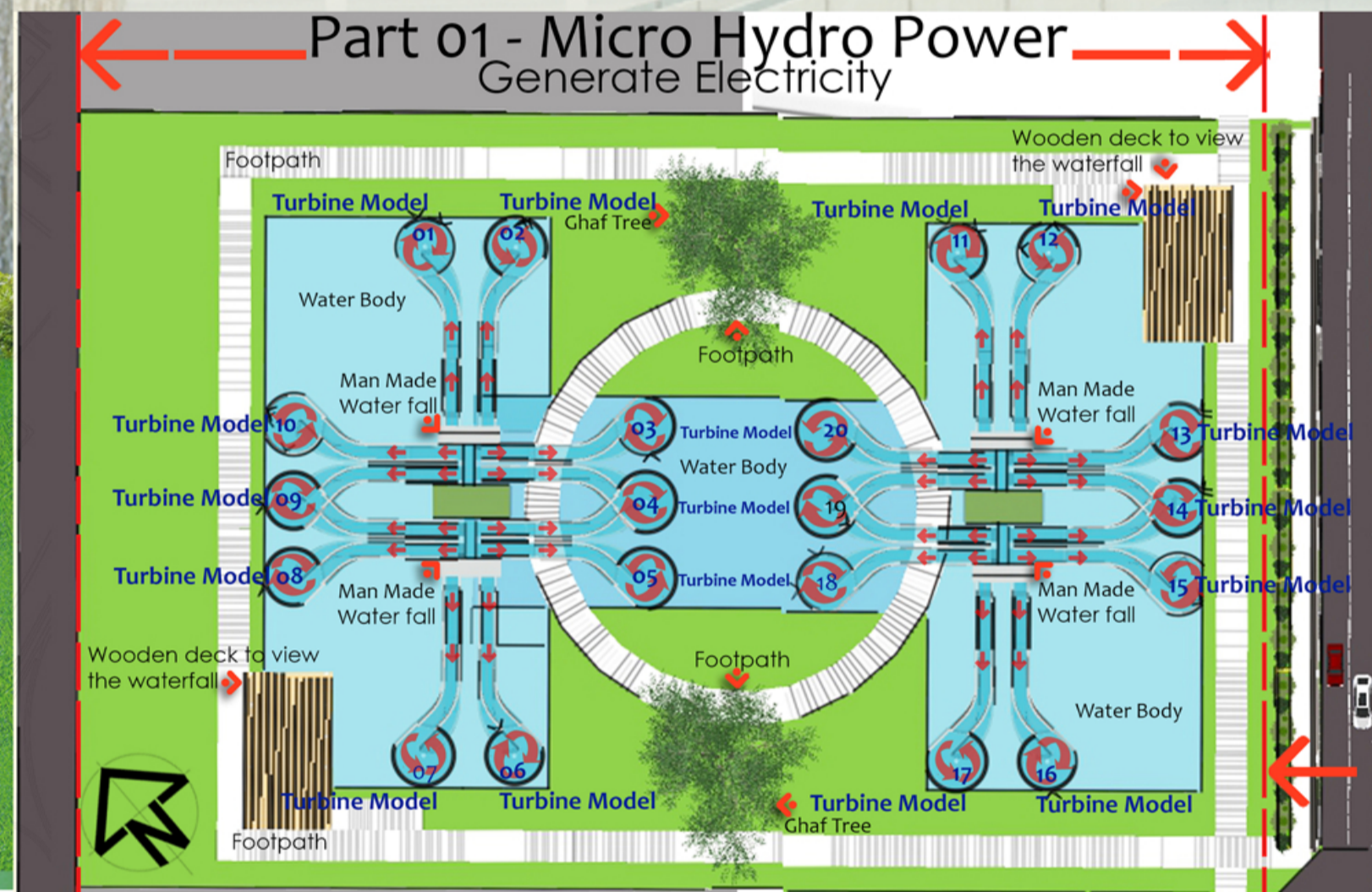
I have opted for 20 turbines as per model C. The power range achievable is 16 - 100 kw depending on the flow range. For a flow range of 2.0m3/s, with 20 Units **The minimum power achieved will be 16kw x 20 = 320kw**. For a flow range of 5.8m3/s, with 20 Units **The maximum power achieved will 100kw x 20 = 2000 kw/2Mega W** <https://www.turbulent.be/technology>



Man Made Water Fall

Ghaf Tree

Artistic element which symbolises a Tree.



05 Turbine Model C

04 Turbine Model C

03 Turbine Model C

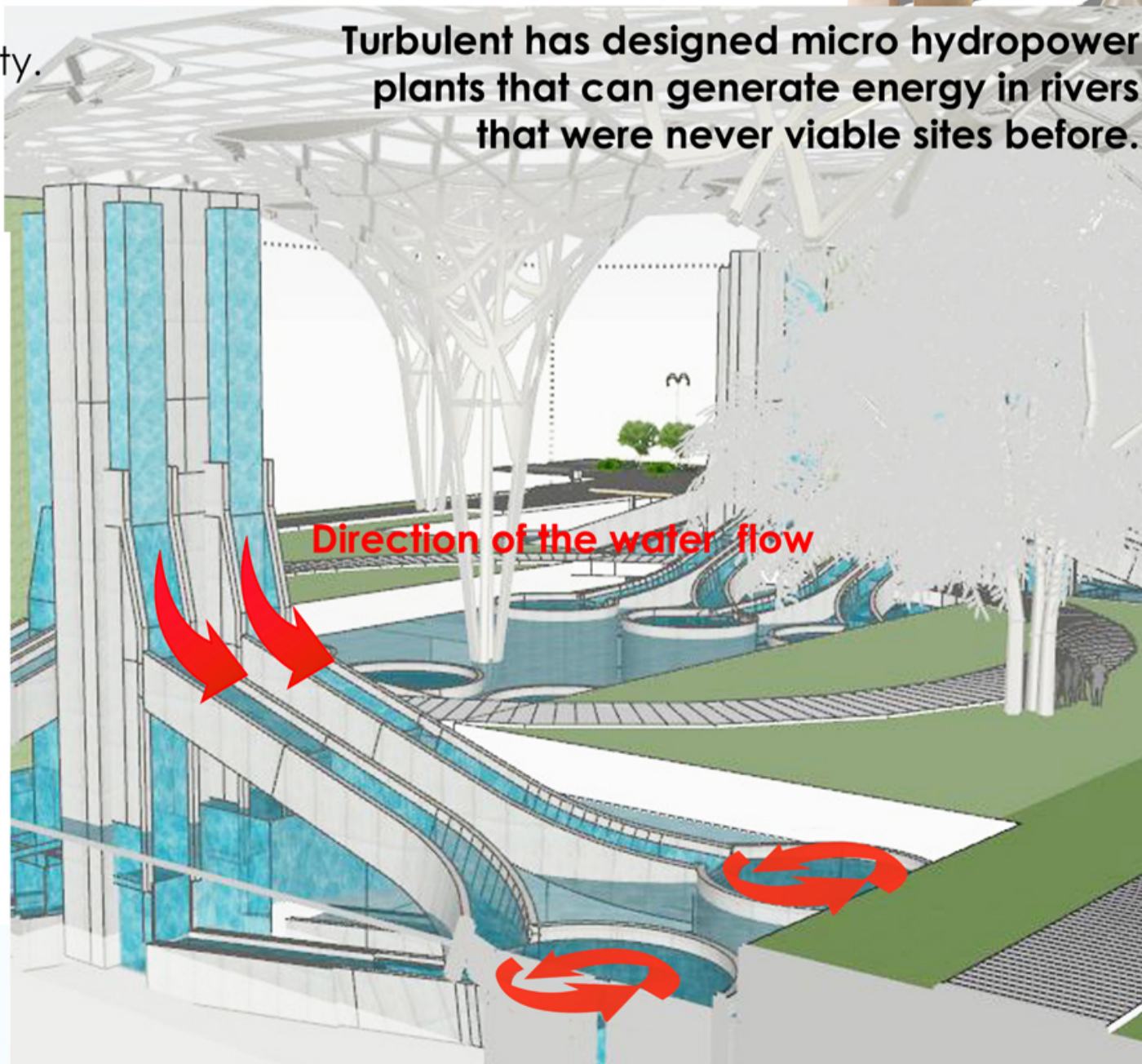
20 Turbine Model C

19 Turbine Model C

18 Turbine Model C

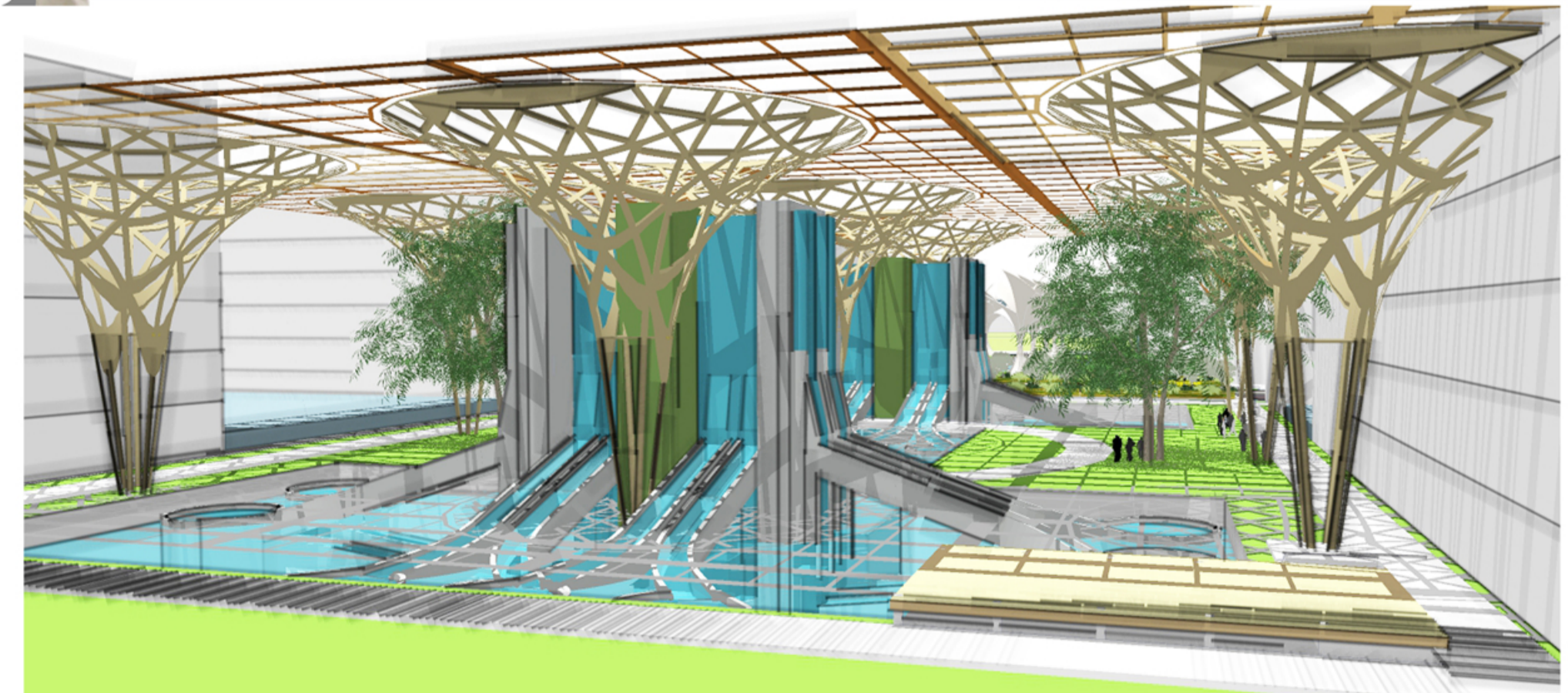
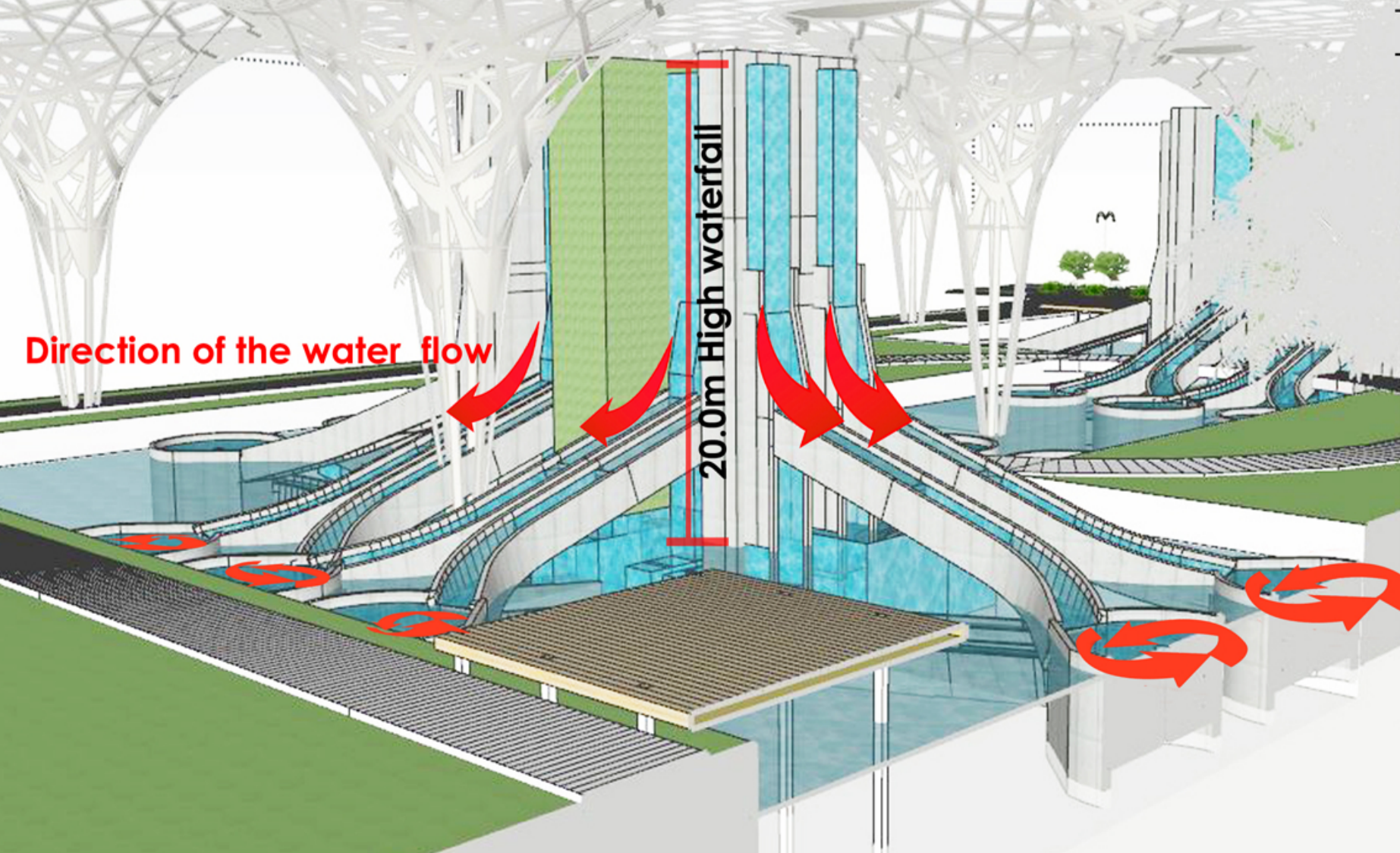
**Installation:**

- Easy set-up with long-lasting productivity.
- Minimum site requirements.
- Drop of 1.5m to 3.5m
- Minimum flow of 1m3 (1000 l)/second



Turbulent has designed micro hydropower plants that can generate energy in rivers that were never viable sites before.

Water fall the water will flow into the Turbine to produce electricity



The idea for the artistic element symbolises a Tree. Inspiration is from the year of tolerance. Plant a few Ghaf trees on the site. The waterfall is landscape art