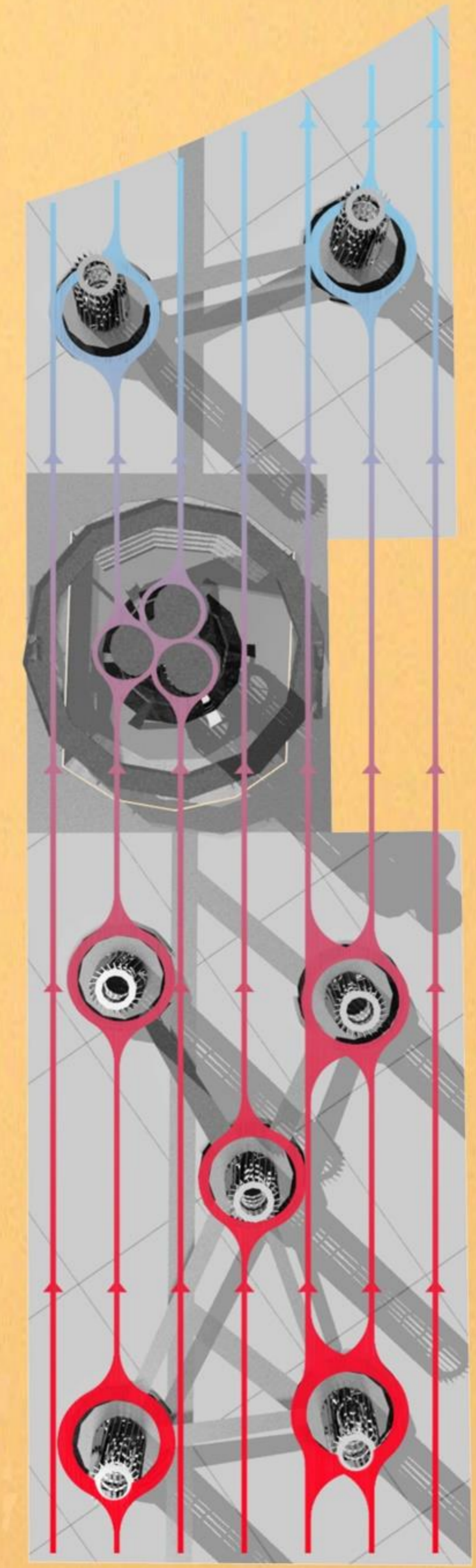THE PROJECT WILL USE THE WIND CONDITIONS SURROUNDING THE INTERVENTION AREA. FORTUNATELY FOS US WE WILL TAKE ADVANTAGE OF THE CONSTANT NORT-WEST WINDS AROUND AROUND 9-11 KTS.

20.318

24.818

4.000

WIND TURBINE SYSTEM

STEEL SUPPORT

CENTRAL AXIS

EXTERIOR ALUMINIUM CUTAIN WALL FACADE

THIS KIND OF TUBINE HAS BEEN DEVELOPED PREVIOUSLY AS AN ALTERNITIFVE OF THE TRADITIONAL EOLIC TUBINE. THE ADVANTAGE OF THE SINGLE ELEMENT IS:
-FULLY INDEPENDENT FROM THE WID DIRECTIION 360.

-SILENCE PERMITING TO BE A MEDITATION AREA AND NOT DISTURBING THE VISITORS.
-PERMITS BEING EFFICIENT WIT AN SMALLER DIMENSION.
-SAFETY
'LOW CUT SPPED (AROUND 1.5M/S)

DIFFERENTLY TO THE TRADITIONAL MODULE WE LOCATE THEM IN TOWERS TO MULTIPLY THE AMOUNT OF ENERGY THAT WILL BE GENETRATED PER USED AREA.

CONCRETE SIDEWALK

RETAINING WALL

PRECAST CONCRETE COLUMN

CONCRETE BASEMENT

CONCRETE STAIRCASE

4.500

PROTOTYPE
FUNCTION DIAGRAM

REDUCTION BOX

MAIN AXIS

ALTERNATOR

THE ELEMENT WILL BE SUPPORTED IN A CONCRET PRECASTBASEMENTA THAT WILL MAINTAIN THE INTEGRITY OF THE STRUCTURE I ALL MON¿MENTS AS WELL AS FUNCTIONING AS A URBAN PLAZA THAT WILL RECEIVE THE VISITORS. THE ENRGUY OF THE ROTATING TURBINES WILL BE CONCENTRATED IN A BURIED ALTERNATOR. AFTER IT THE NERGY WILL TRAVEL IN THE T PATHA THAT FOLLOW THE SITE DEVELOPEMENT UNTIL IT GETS TO THE CENTRAL ELEMENT AND TO T FINALLY TO THE CUTY.

ENERGY ANALYSIS

EACH ONE TOWER MODULE PRODUCE 40 KW. THE WHOLE PROJECT WILL GATHER

400 KW

COMPARED WITH THE APPROXIMATE COST OF THE ENTIRE PROJECT (500,000DLLS) WE WILL GET A COST OF 1.25 DLLS/WATT. ANNUALLY IT COULD GATHER 1,20,000.00 KW (CONSIDERING 20 HOURS PER DAY AND 150 USING DAYS DURING THE YEAR)

ENVIROMENTAL IMPACT

The project environment impact will be low; we will THE PROJECT ENVIRONMENT IMPACT WILL BE LOW; WE WILL CONSIDER OPEN MOST OF THE AREA OF THE PLACE, CONSIDERING THE SAND PART OF THE MASDAR IDENTITY. JUST THE CONCRETE PATHS AND THE MODULE'S FRAMES AND FOUNDATIONS. IT WILL HAVE A GOOD INTERACTION WITH NATURE, NOT CAUSING AN IMPORTANT SOUND AND ALSO FOR CONSIDERING IT SAFETIER FOR BIRDS AND PERSONS THAT THE CONVENTIONAL EOLIC TURBINES. WE PROPOSE SMALL BUT WELL-DESIGNED GREEN AREAS UNDER EACH MODULE SPND THE MAIN PLAZA, CONSIDERING THE AREA AS A LOW WATER REQUIREMENT BY EACH SELF. THE MAIN IMPACT WE LOOK FOR IS BEING ABLE TO OPEN PEOPLES IDEA OF THE DAY BY DAY USE OF SUSTAINABLE ENERGIES.

SITE FUNCTION
DIAGRAM

THE SITE NOT ONLY RESPONDS AS A COMUNICATION PATH BETWEEN THE SURROUNDING SPACES IN THE AREA BUT ALSO CONNCETS ALL THE TOWERS TO CONCANETRATE THE PRODUCED ENERGY WITH THE CENTRAL AREA WHERE IT FINISHES. THE IDEA IS TO TEACH EVERY PERSON THE FUNCTIONINING . WE STRONGLY BELIEVE THAT PERSONS WILL VALORATE MORE WHAT THEY REALLY KNOW, IN THIS OCASION THE METHOD OF GTTING ENERGY FROM THE WIND.