

step 1

Data 15 MW RWT

Create FE blade model

Nodes undeformed blade

Generate aerodynamic polars

Data 15 MW RWT

Wind turbine simulation & load extraction

Internal loads

Transform local to global loads

step 2

Loads global CSYS

Data 15 MW RWT

Create FE blade model

FE model

FE solver (Ansys)

Nodal coordinates + displacements

Calculate deformed 2D airfoils

Deformed CS

Calculate aerodynamic polars

Aerodynamic polars, chord length

Wind turbine simulation & load extraction

Loads