--------- BEAMDYN V1.01.\* INPUT FILE -------------------------------------------

NREL 5MW blade primary input file

---------------------- SIMULATION CONTROL --------------------------------------

TRUE Echo - Echo input data to "<RootName>.ech" (flag)

2 analysis\_type - 1: Static analysis; 2: Dynamic analysis (switch)

0.0 rhoinf - Numerical Damping Parameter for Generalized-alpha integrator

2 quadrature - 1: Gauss; 2: Trapezoidal (switch)

DEFAULT refine - Refinement factor for quadrature 2 (-). DEFAULT = 1

DEFAULT n\_fact - Factorization frequency (-). DEFAULT = 5

DEFAULT DTBeam - Time step size (s).

DEFAULT NRMax - Max number of iterations in Newton-Ralphson algorithm (-). DEFAULT = 10

DEFAULT stop\_tol - Tolerance for stopping criterion (-)

---------------------- GEOMETRY PARAMETER --------------------------------------

1 member\_total - Total number of members (-)

49 kp\_total - Total number of key points (-)

1 49 - Member number; Number of key points in this member

kp\_xb kp\_yb kp\_zb initial\_twist

(m) (m) (m) (deg)

0.000000 0.000000 0.000000 13.308000

0.000000 0.000000 0.199875 13.308000

0.000000 0.000000 1.199865 13.308000

0.000000 0.000000 2.199855 13.308000

0.000000 0.000000 3.199845 13.308000

0.000000 0.000000 4.199835 13.308000

0.000000 0.000000 5.199825 13.308000

0.000000 0.000000 6.199815 13.308000

0.000000 0.000000 7.199805 13.308000

0.000000 0.000000 8.201025 13.308000

0.000000 0.000000 9.199785 13.308000

0.000000 0.000000 10.199775 13.308000

0.000000 0.000000 11.199765 13.181000

0.000000 0.000000 12.199755 12.848000

0.000000 0.000000 13.200975 12.192000

0.000000 0.000000 14.199735 11.561000

0.000000 0.000000 15.199725 11.072000

0.000000 0.000000 16.199715 10.792000

0.000000 0.000000 18.200925 10.232000

0.000000 0.000000 20.200290 9.672000

0.000000 0.000000 22.200270 9.110000

0.000000 0.000000 24.200250 8.534000

0.000000 0.000000 26.200230 7.932000

0.000000 0.000000 28.200825 7.321000

0.000000 0.000000 30.200190 6.711000

0.000000 0.000000 32.200170 6.122000

0.000000 0.000000 34.200150 5.546000

0.000000 0.000000 36.200130 4.971000

0.000000 0.000000 38.200725 4.401000

0.000000 0.000000 40.200090 3.834000

0.000000 0.000000 42.200070 3.332000

0.000000 0.000000 44.200050 2.890000

0.000000 0.000000 46.200030 2.503000

0.000000 0.000000 48.201240 2.116000

0.000000 0.000000 50.199990 1.730000

0.000000 0.000000 52.199970 1.342000

0.000000 0.000000 54.199950 0.954000

0.000000 0.000000 55.199940 0.760000

0.000000 0.000000 56.199930 0.574000

0.000000 0.000000 57.199920 0.404000

0.000000 0.000000 57.699915 0.319000

0.000000 0.000000 58.201140 0.253000

0.000000 0.000000 58.699905 0.216000

0.000000 0.000000 59.199900 0.178000

0.000000 0.000000 59.699895 0.140000

0.000000 0.000000 60.199890 0.101000

0.000000 0.000000 60.699885 0.062000

0.000000 0.000000 61.199880 0.023000

0.000000 0.000000 61.500000 0.000000

---------------------- MESH PARAMETER ------------------------------------------

5 order\_elem - Order of interpolation (basis) function (-)

---------------------- MATERIAL PARAMETER --------------------------------------

"5MW\_Blade\_IEC.inp" BldFile - Name of file containing properties for blade (quoted string)

---------------------- PITCH ACTUATOR PARAMETERS -------------------------------

False UsePitchAct - Whether a pitch actuator should be used (flag)

200 PitchJ - Pitch actuator inertia (kg-m^2) [used only when UsePitchAct is true]

2.0E+7 PitchK - Pitch actuator stiffness (kg-m^2/s^2) [used only when UsePitchAct is true]

5.0E+5 PitchC - Pitch actuator damping (kg-m^2/s) [used only when UsePitchAct is true]

---------------------- OUTPUTS -------------------------------------------------

True SumPrint - Print summary data to "<RootName>.sum" (flag)

"ES10.3E2" OutFmt - Format used for text tabular output, excluding the time channel.

2 NNodeOuts - Number of nodes to output to file [0 - 9] (-)

1, 3 OutNd - Nodes whose values will be output (-)

OutList - The next line(s) contains a list of output parameters. See OutListParameters.xlsx.

"RootFxr, RootFyr, RootFzr"

"RootMxr, RootMyr, RootMzr"

"N1Fxl,N1Fyl,N1Fzl"

"N1Mxl,N1Myl,N1Mzl"

"TipTDxr, TipTDyr, TipTDzr"

"TipRDxr, TipRDyr, TipRDzr"

END of input file (the word "END" must appear in the first 3 columns of this last OutList line)

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