

NREL 5.0 MW offshore baseline aerodynamic input properties; Compatible with AeroSI

SysUnits

- System of units for used for input and output [must be SI]

BEDDOES

StallMod

- Dynamic stall included [BEDDOES or STEADY] (unquoted string)

USE\_CM

UseCm

- Use aerodynamic pitching moment model? [USE\_CM or NONE]

EQUIL

InfModel

- Inflow model [DYNIN or EQUIL] (unquoted string)

SWIRL

IndModel

- Induction-factor model [NONE or WAKE or SWIRL] (unquoted string)

0.005

AToler

- Induction-factor tolerance (convergence criteria) (-)

PRANDtl

TLModel

- Tip-loss model (EQUIL only) [PRANDtl, GTECH, or NONE]

PRANDtl

HLModel

- Hub-loss model (EQUIL only) [PRANDtl or NONE] (unquoted string)

"16ms\_wGust.hh"

"TurbSim.bts"

WindFile

- Name of file for wind input

90.0

HH

- Wind reference (hub) height [TowerHt+Twr2Shft+OverHt]

0.0

TwrShad

- Tower-shadow velocity deficit (-)

9999.9

ShadHWid

- Tower-shadow half width (m)

9999.9

T\_Shad\_Refpt

- Tower-shadow reference point (m)

1.225

AirDens

- Air density (kg/m^3)

1.464E-5

KinVisc

- Kinematic air viscosity [CURRENTLY IGNORED] (m^2/sec)

0.02479

DTAero

- Time interval for aerodynamic calculations (sec)

8

NumFoil

- Number of airfoil files (-)

"..\..\..\..\NREL5MW\_Properties\AeroData\Cylinder1.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\Cylinder2.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\DU40\_A17.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\DU35\_A17.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\DU30\_A17.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\DU25\_A17.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\DU21\_A17.dat"

"..\..\..\..\NREL5MW\_Properties\AeroData\NACA64\_A17.dat"

17

BldNodes

- Number of blade nodes used for analysis (-)

RNodes

AeroTwst

DRNodes

Chord

NFoil

PrnElm

2.8667

13.308

2.7333

3.542

1

NOPRINT

5.6000

13.308

2.7333

3.854

1

NOPRINT

8.3333

13.308

2.7333

4.167

2

NOPRINT

11.7500

13.308

4.1000

4.557

3

NOPRINT

15.8500

11.480

4.1000

4.652

4

NOPRINT

19.9500

10.162

4.1000

4.458

4

NOPRINT

24.0500

9.011

4.1000

4.249

5

NOPRINT

28.1500

7.795

4.1000

4.007

6

NOPRINT

32.2500

6.544

4.1000

3.748

6

NOPRINT

36.3500

5.361

4.1000

3.502

7

NOPRINT

40.4500

4.188

4.1000

3.256

7

NOPRINT

44.5500	3.125	4.1000	3.010	8	NOPRINT
48.6500	2.319	4.1000	2.764	8	NOPRINT
52.7500	1.526	4.1000	2.518	8	NOPRINT
56.1667	0.863	2.7333	2.313	8	NOPRINT
58.9000	0.370	2.7333	2.086	8	NOPRINT
61.6333	0.106	2.7333	1.419	8	NOPRINT