WIND WITH MILLER

www.WINDPOWER.org

© 2001

You are here: Home

Do you want to go somewhere else?

Search

The search engine requires an Internet connection to work

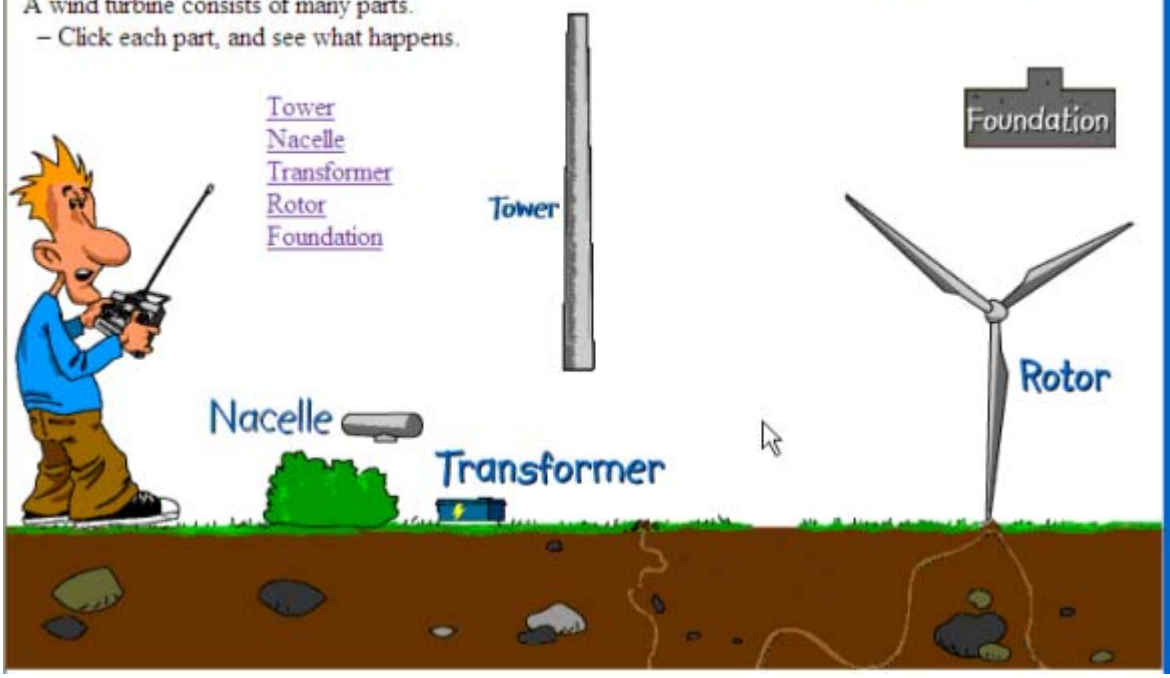
Produced by Bryan d'Emil, Morten Jacobsen, Martin Starcke Jensen, Søren Krohn, Kim Conrad Petersen and Katrine Sandstrøm. Translations by Alicia Andúgar, Hanne Jersild, Søren Krohn, Norbert Pöcksteiner, and Katrine Sandstrøm. Produced with support from the Danish Ministry of Education, the Danish Ministry of the Environment and Energy, and the Danish Wind Industry Association.

Assemble a Wind Turbine

Crash Course

A wind turbine consists of many parts.
– Click each part, and see what happens.

Tower
Nacelle
Transformer
Rotor
Foundation



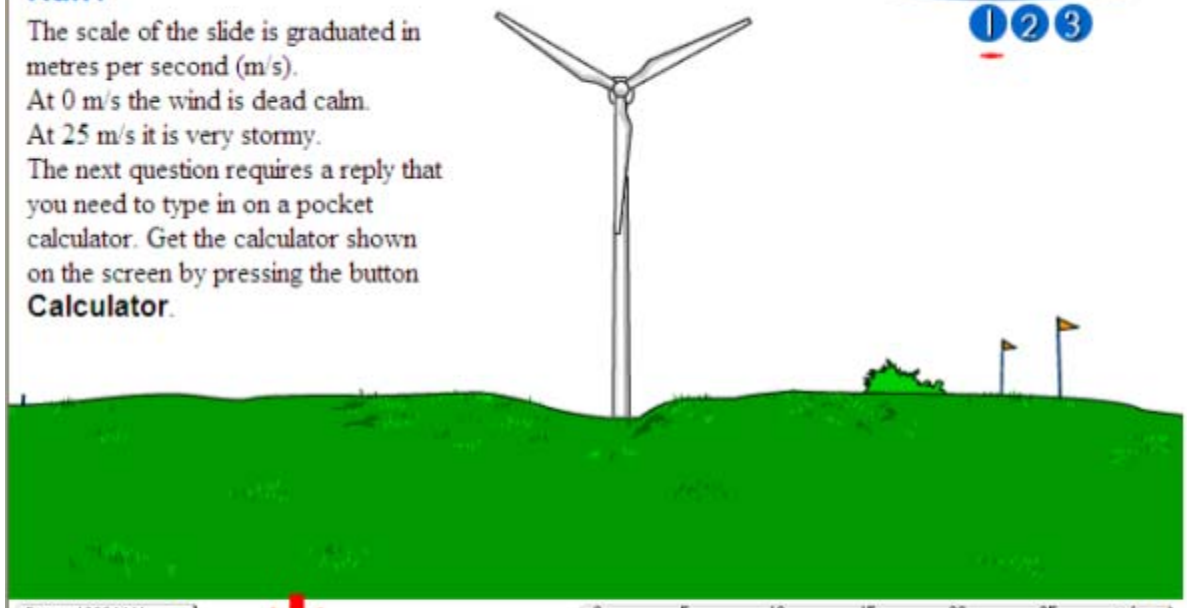
www.WINDPOWER.org

Home

© 2001

When and How Quickly Does a Wind Turbine Run?

The scale of the slide is graduated in metres per second (m/s).
At 0 m/s the wind is dead calm.
At 25 m/s it is very stormy.
The next question requires a reply that you need to type in on a pocket calculator. Get the calculator shown on the screen by pressing the button **Calculator**.



Activities
1 2 3

www.WINDPOWER.org

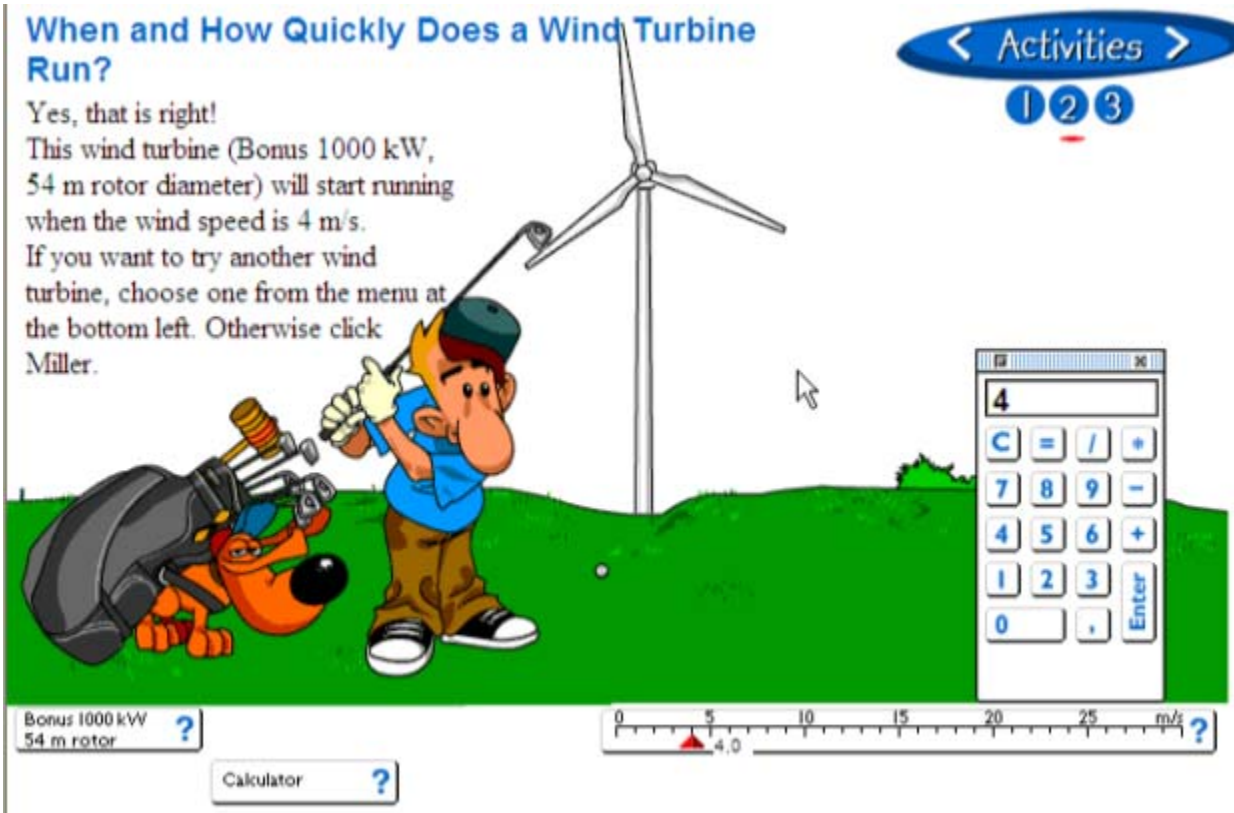
Home

More...

© 2001

When and How Quickly Does a Wind Turbine Run?

Yes, that is right!
This wind turbine (Bonus 1000 kW, 54 m rotor diameter) will start running when the wind speed is 4 m/s.
If you want to try another wind turbine, choose one from the menu at the bottom left. Otherwise click Miller.



Activities
1 2 3

www.WINDPOWER.org

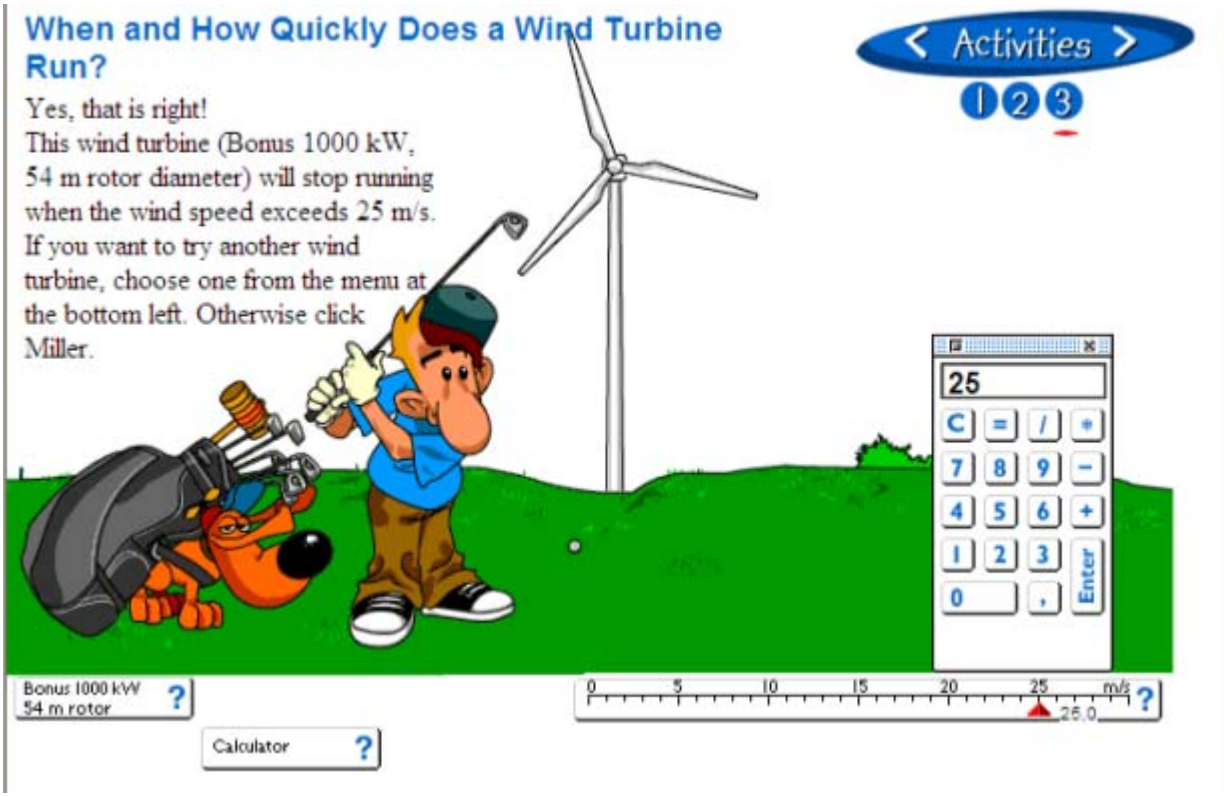
Home

More...

© 2001

When and How Quickly Does a Wind Turbine Run?

Yes, that is right!
This wind turbine (Bonus 1000 kW, 54 m rotor diameter) will stop running when the wind speed exceeds 25 m/s.
If you want to try another wind turbine, choose one from the menu at the bottom left. Otherwise click Miller.



www.WINDPOWER.org

Home

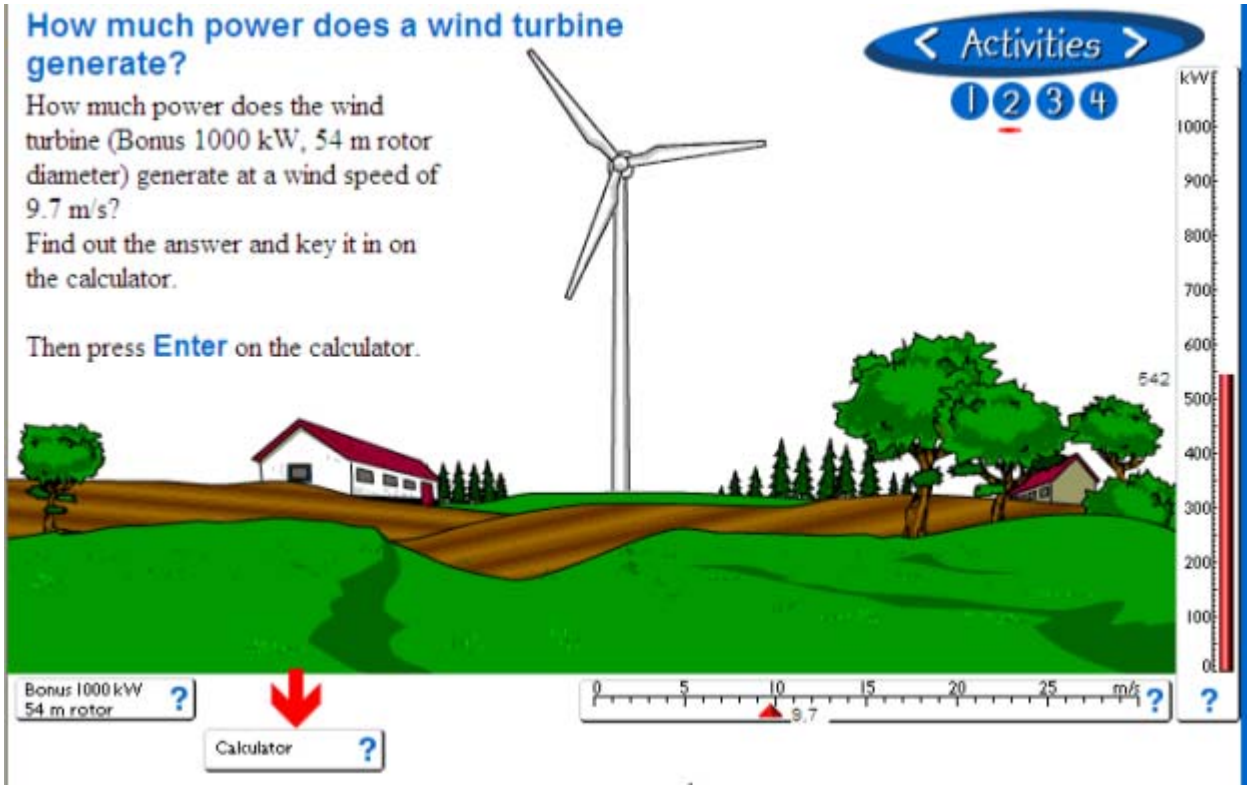
More...

© 2001

How much power does a wind turbine generate?

How much power does the wind turbine (Bonus 1000 kW, 54 m rotor diameter) generate at a wind speed of 9.7 m/s?
Find out the answer and key it in on the calculator.

Then press **Enter** on the calculator.



www.WINDPOWER.org

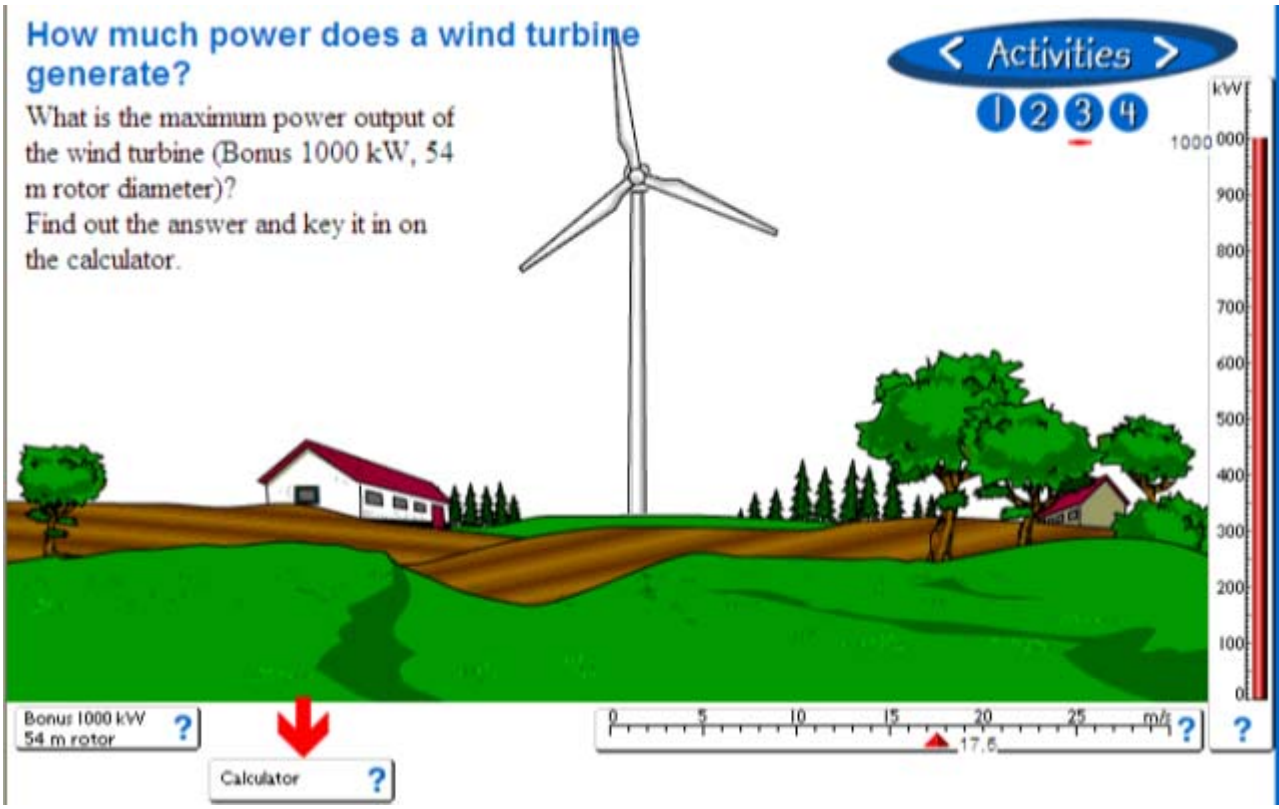
Home

More...

© 2001

How much power does a wind turbine generate?

What is the maximum power output of the wind turbine (Bonus 1000 kW, 54 m rotor diameter)?
Find out the answer and key it in on the calculator.



www.WINDPOWER.org

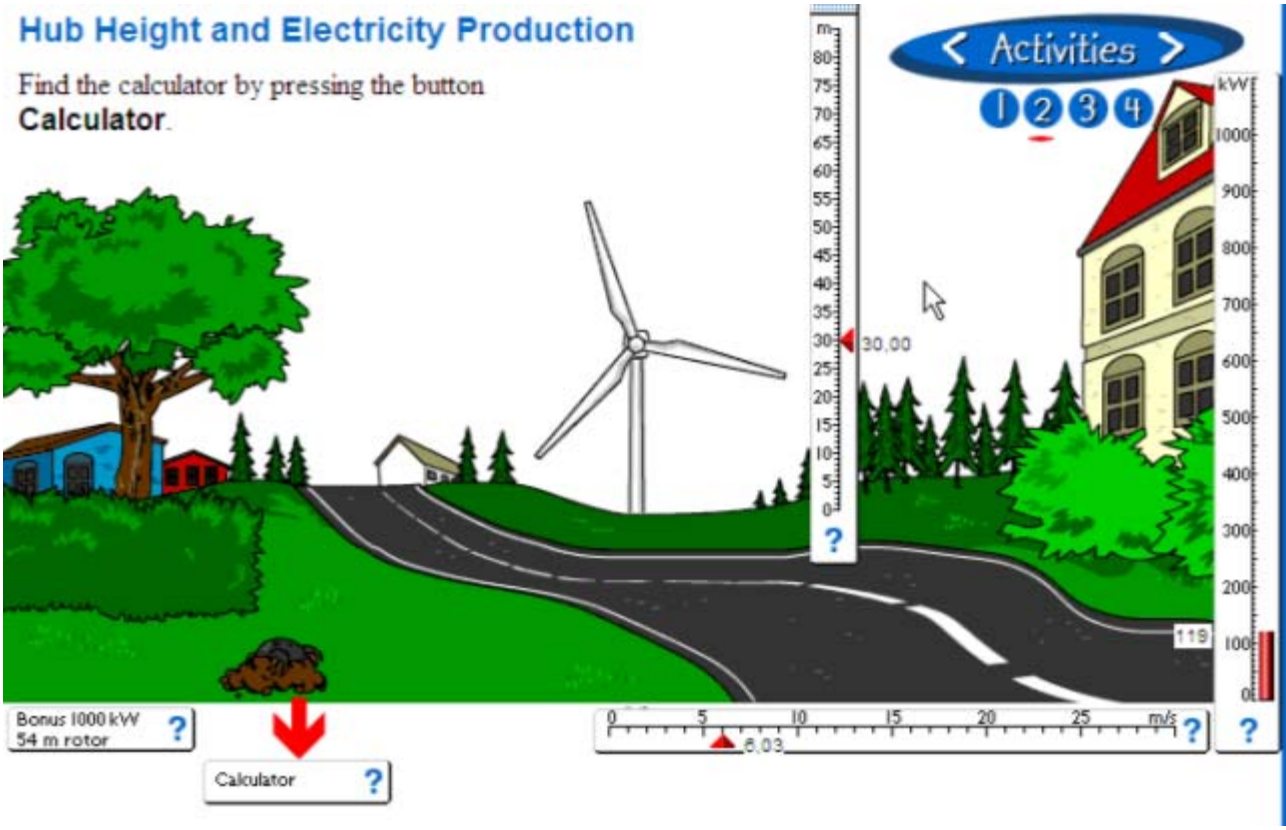
Home

More...

© 2001

Hub Height and Electricity Production

Find the calculator by pressing the button **Calculator**.

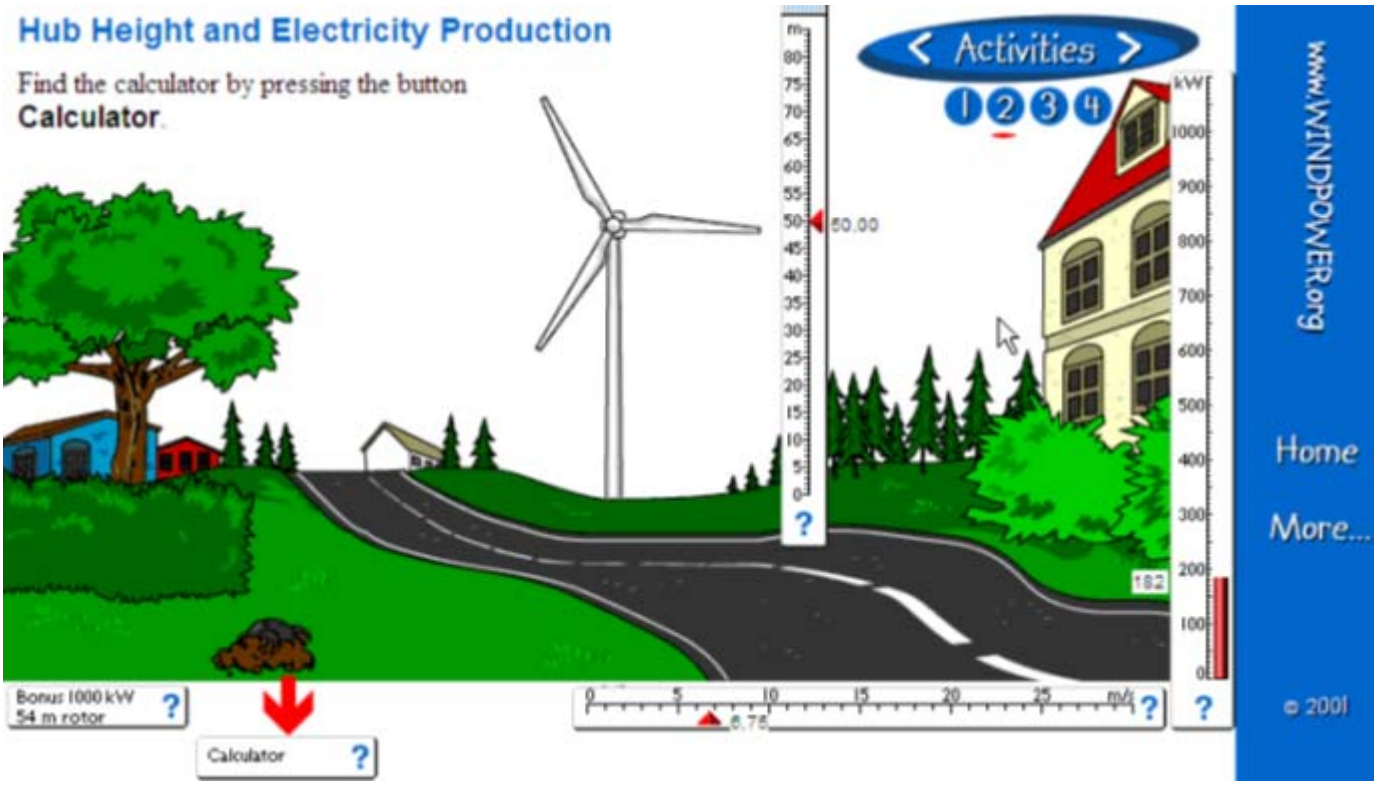


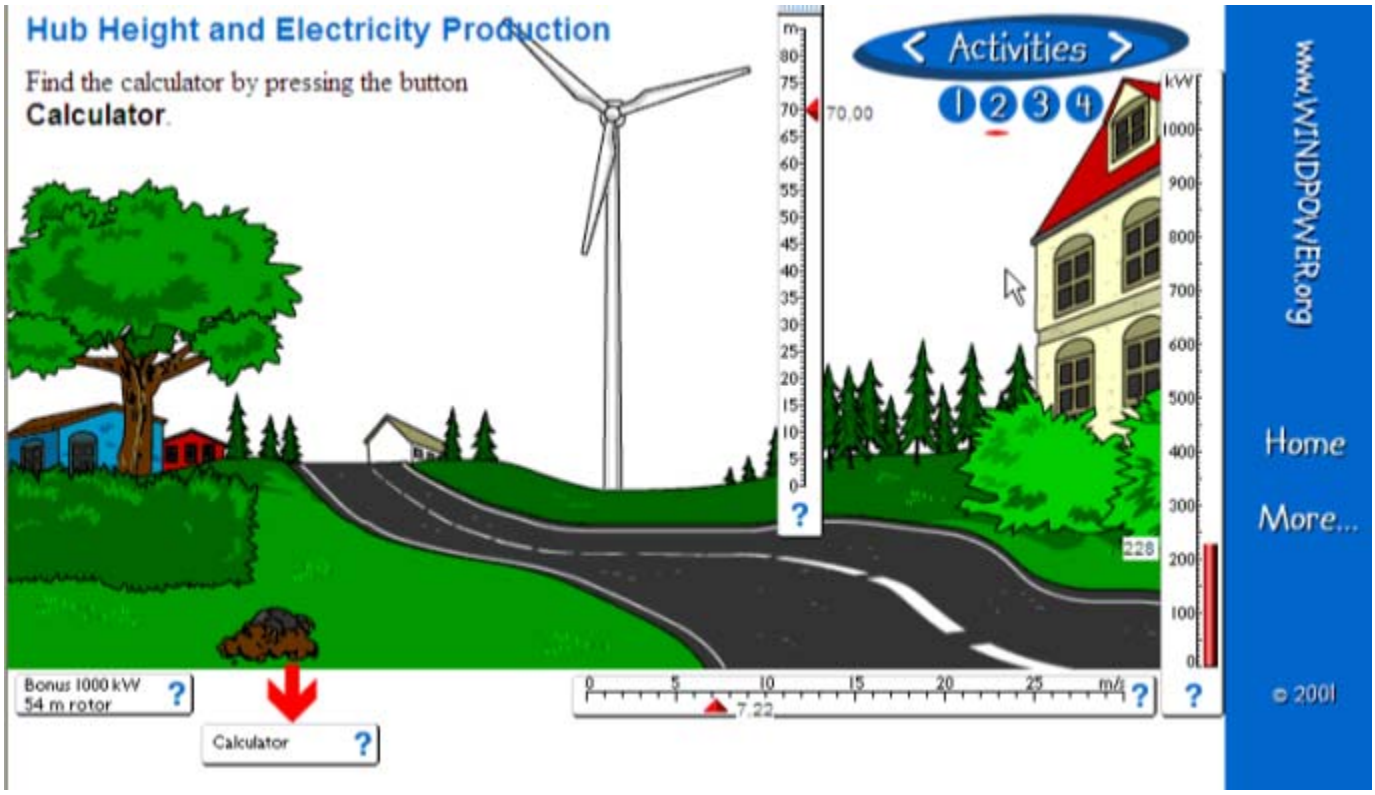
www.WINDPOWER.org

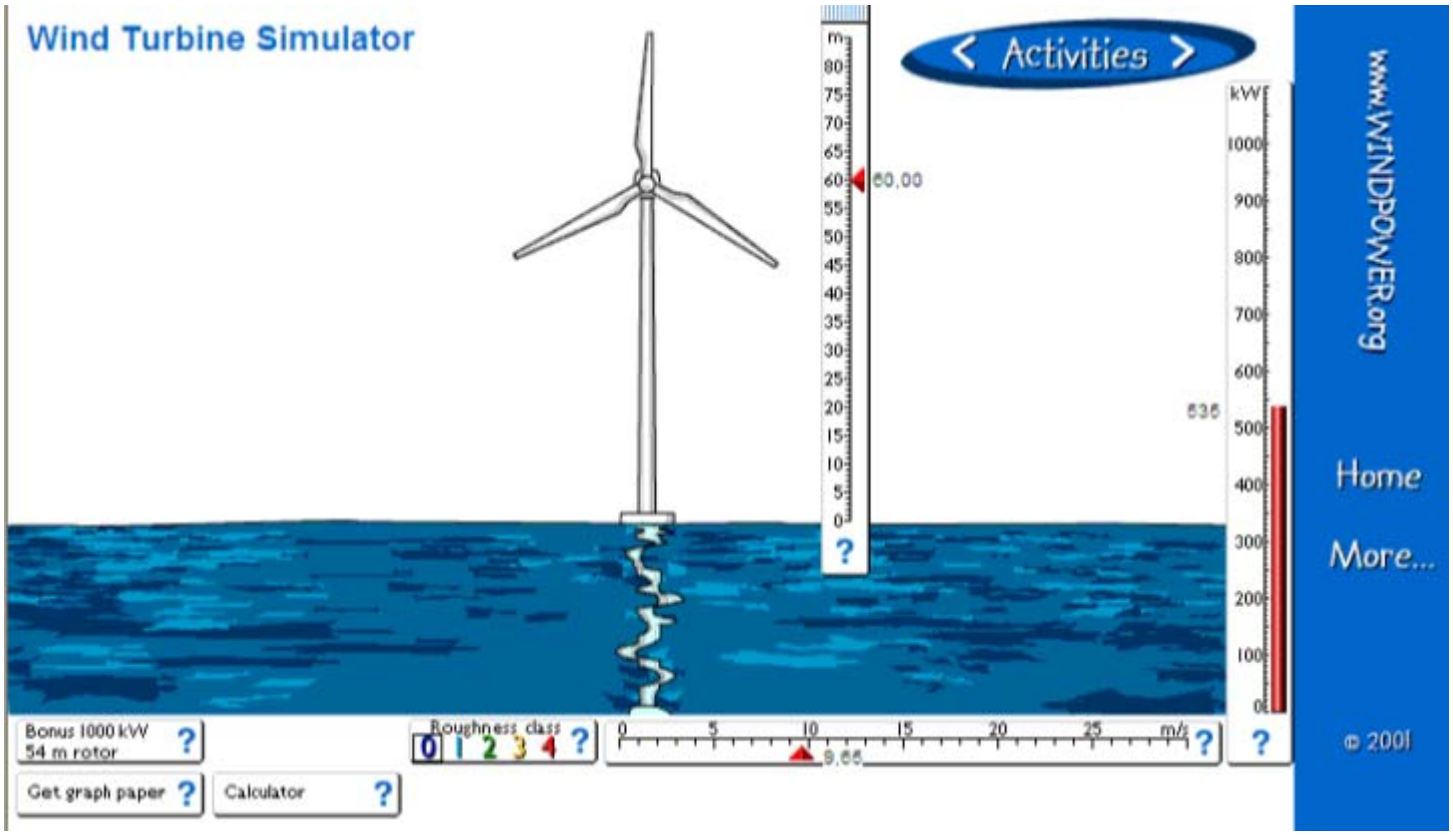
Home

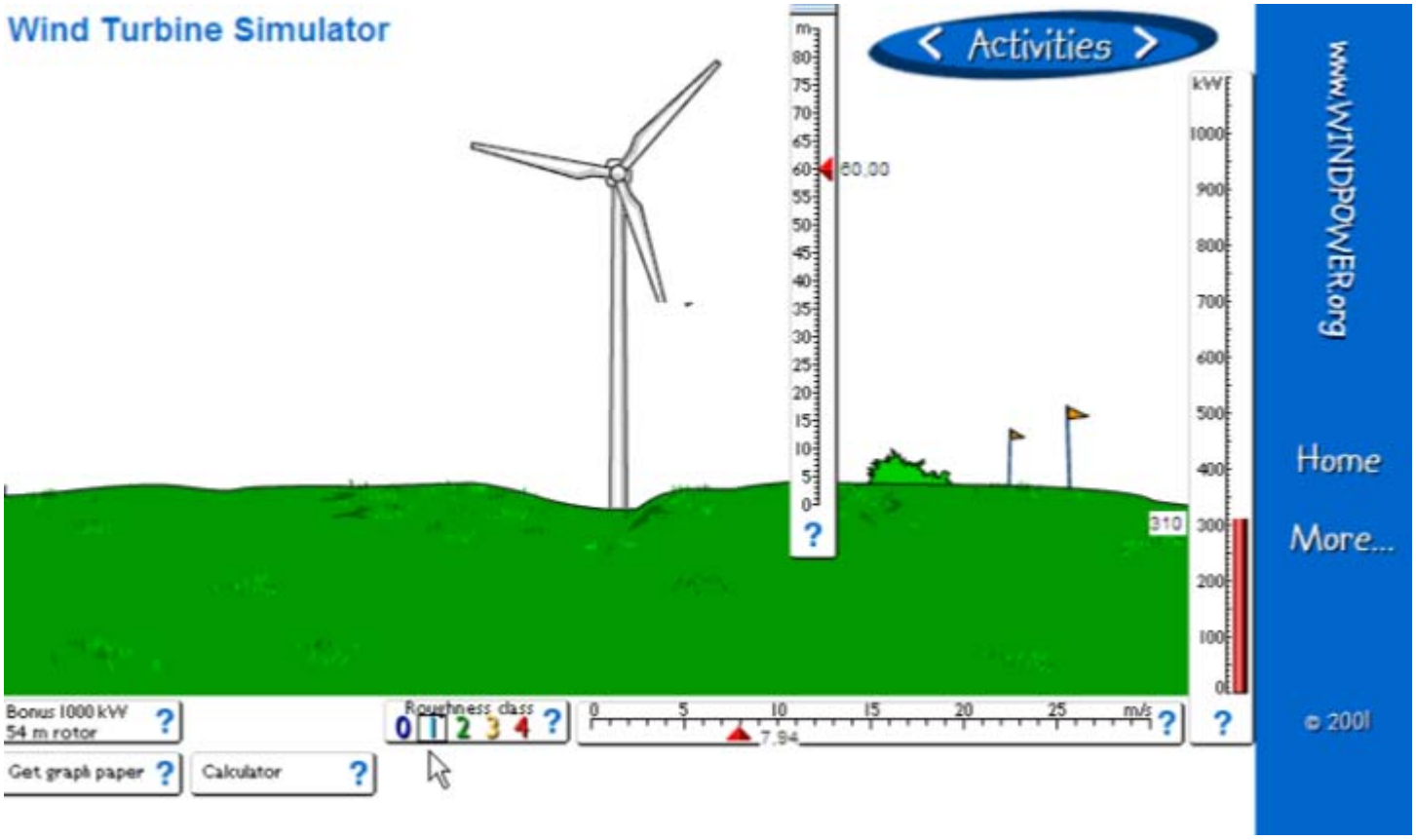
More...

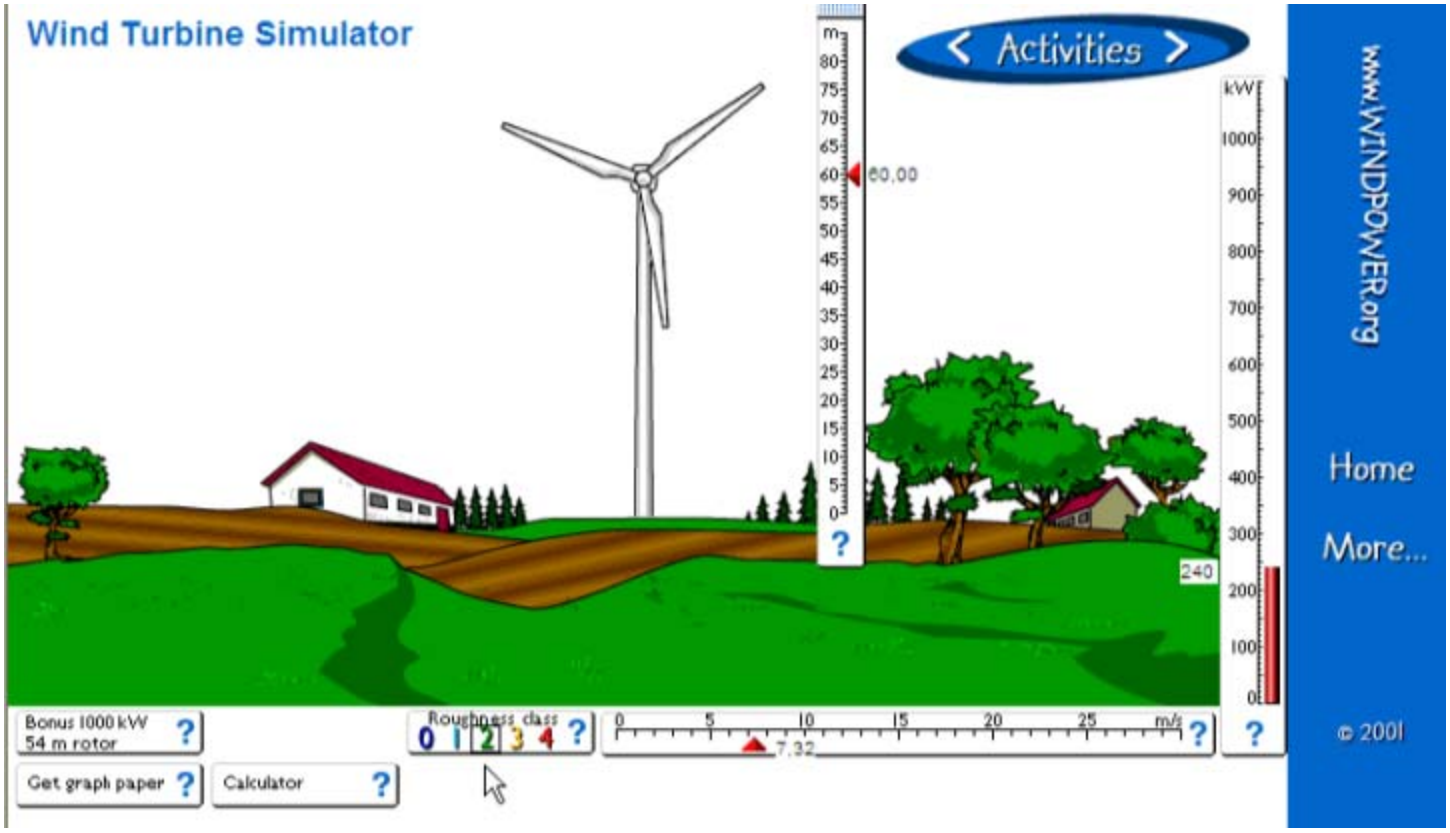
© 2001

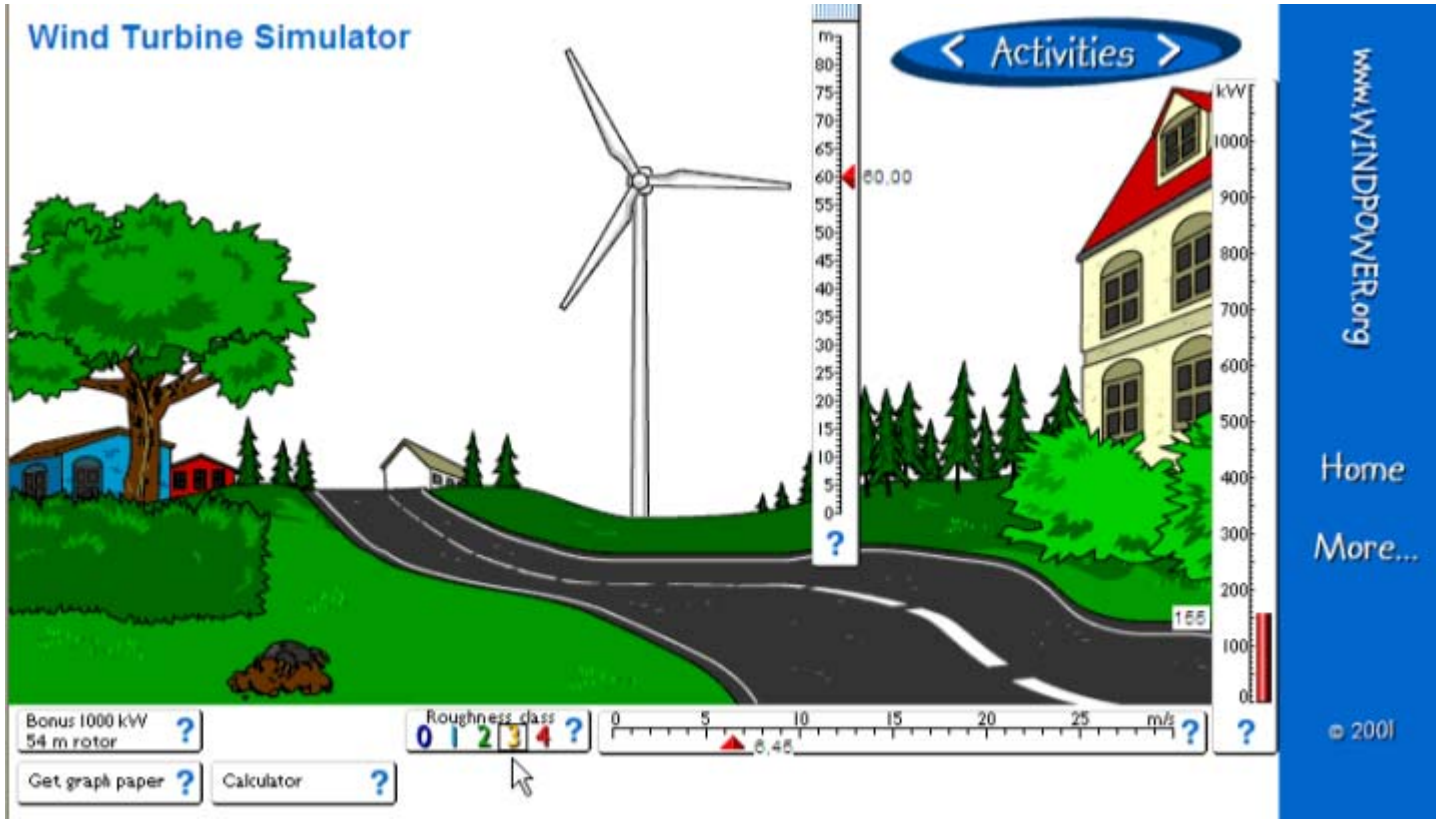

Hub Height and Electricity Production
Find the calculator by pressing the button
Calculator.
< Activities >
1 2 3 4
m
50.00
kW
192
Bonus 1000 kW
54 m rotor
Calculator
m/s
6.75
www.WINDPOWER.org
Home
More...
© 2001

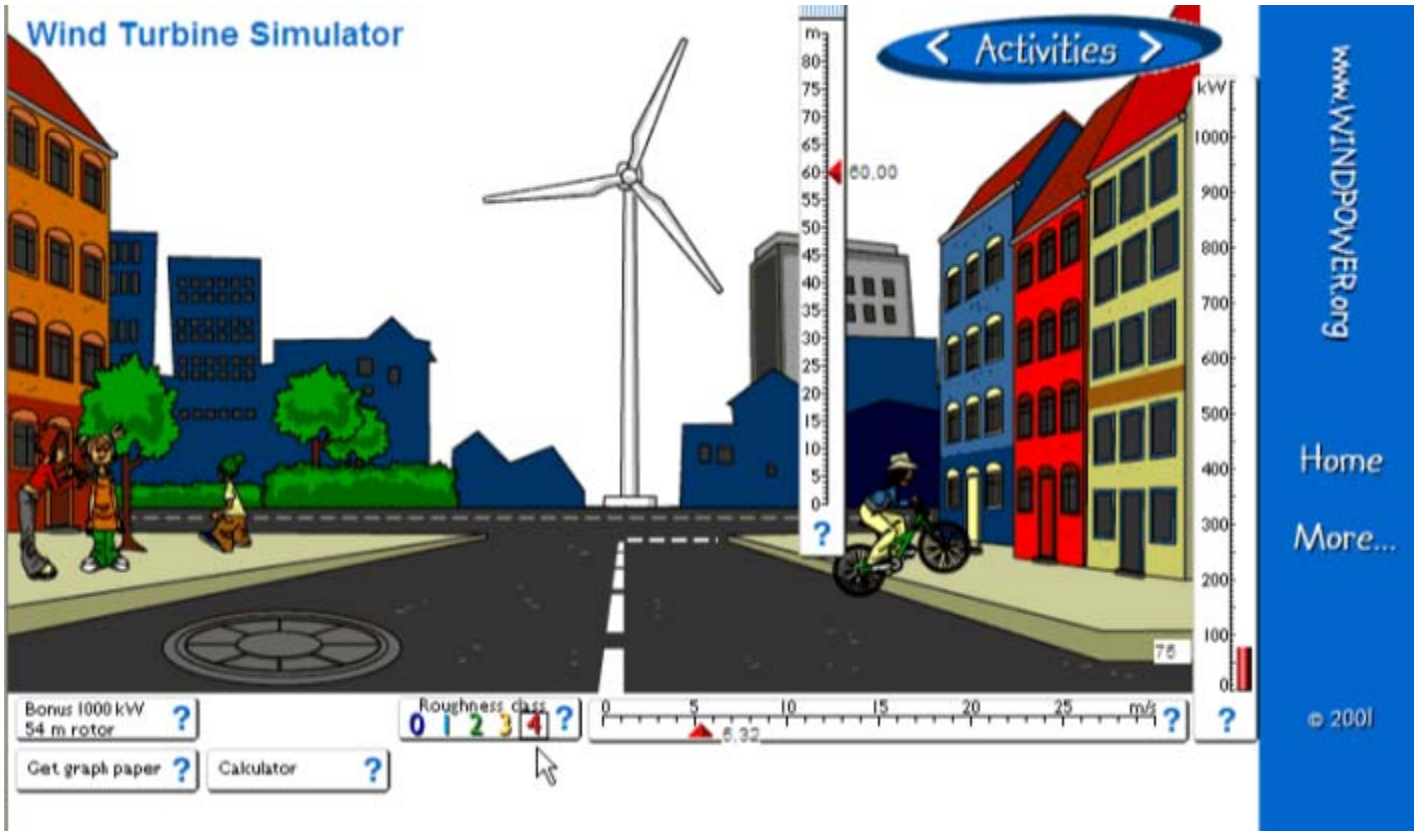

Hub Height and Electricity Production
Find the calculator by pressing the button
Calculator.
< Activities >
1 2 3 4
m
70.00
kW
228
Bonus 1000 kW
54 m rotor
Calculator
m/s
7.22
www.WINDPOWER.org
Home
More...
© 2001


Wind Turbine Simulator
Activities
www.WINDPOWER.org
Home
More...
© 2001
60,00
536
Bonus 1000 kW
54 m rotor
Roughness class
0 1 2 3 4
9,66
Get graph paper
Calculator


Wind Turbine Simulator
Activities
www.WINDPOWER.org
Home
More...
© 2001
60,00
310
Bonus 1000 kW
54 m rotor
Roughness class
0 1 2 3 4
7,94
Get graph paper
Calculator


Wind Turbine Simulator
Activities
www.WINDPOWER.org
Home
More...
© 2001
m
60.00
kW
240
Bonus 1000 kW
54 m rotor
Roughness class
0 1 2 3 4
m/s
7.32
Get graph paper
Calculator


Wind Turbine Simulator
Activities
www.WINDPOWER.org
Home
More...
© 2001
m
60.00
kW
155
Bonus 1000 kW
54 m rotor
Roughness class
0 1 2 3 4
m/s
6.46
Get graph paper
Calculator


Wind Turbine Simulator
Activities
www.WINDPOWER.org
Home
More...
© 2001
m
60.00
kW
Bonus 1000 kW
54 m rotor
Roughness class
0 1 2 3 4
m/s
6.32
Get graph paper
Calculator