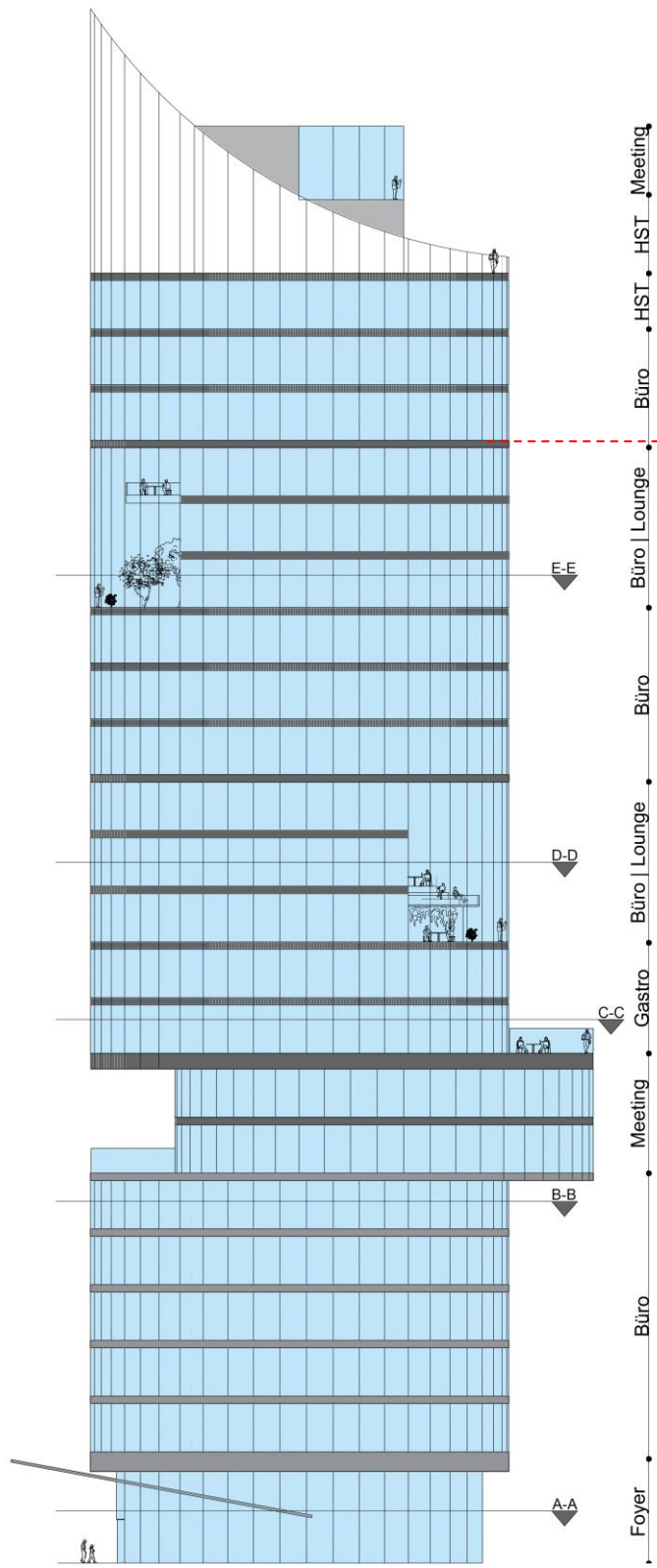


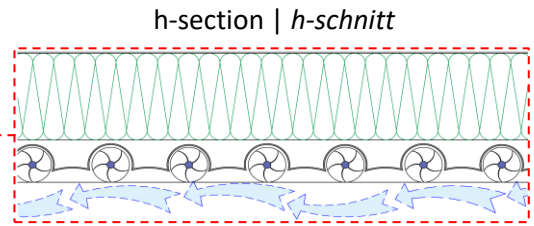
WILLI-RICHARD BROMBACHER

BUILDING ENVELOPE CONSULTANCY + ENGINEERING

PERFORMANCE CALCULATION ENERGY PANEL TYPE B AT ROUND TOWER LEISTUNGSBERECHNUNG ENERGIE PANEEL TYP B AM RUNDEN TURM



© designed by WRB



® Energy Panel B developed by WRBI
protected utility patent | geschütztes Gebrauchsmuster

100M TALL REFERENCE BUILDING 100M HOHES REFERENZGEBÄUDE

Accordingly to the calculation could we generate power of about **153 GWh/anno** with 109 pcs. of the ® Energy Panels Type B at the Façade of the building as roughly designed by **WRB**.

*Nach der Berechnung könnten wir mit 109 Stück des ® Energie Paneelen Typ B an der Fassade des Gebäudes, wie es hier von **WRB** entworfen wurde, etwa **153 GWh/anno** Leistung erreichen.*

WILLI-RICHARD BROMBACHER

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PERFORMANCE CALCULATION ENERGY PANEL TYPE B AT ROUND TOWER LEISTUNGSBERECHNUNG ENERGIE PANEEL TYP B AM RUNDEN TURM

Performance calculation based onto the edited first calculation of **Energy Panel Type B**.

The Reference building R15 is envisaged to have in total 730 Energy Panel (panels below 30m are standard panels) with the dimensions **1,80 * 0,60m**.

We took 15% of them, means 109 panels, into account for the performance calculation by 100%.

Each Panel will provide
0,33 MWh/anno at 5,0m/s and
2,63 MWh/anno at 10,0m/s

Do we calculate with

- 36 panels below 50m * **0,33 MWh/anno= 12 MWh**
- 73 panels above 50m * **2,63 MWh/anno= 192 MWh**

we have a total performance of 204,00 MWh=0,204GWh,
means we reach by 750 wind hours 153 GWh/anno

*Leistungsberechnung basiert auf der überarbeiteten ersten Kalkulation der **Energie Paneel Typ B**.*

*Das Referenzgebäude hat insgesamt 730 Energie Paneele (Paneele unter 30m sind Standardpaneele) in den Abmessungen von **1,80 * 0,60m**. Davon beziehen wir 15%, das sind 109 Paneele, zu 100% in die Leistungsberechnung mit ein.*

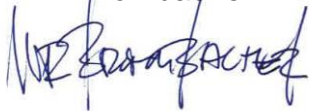
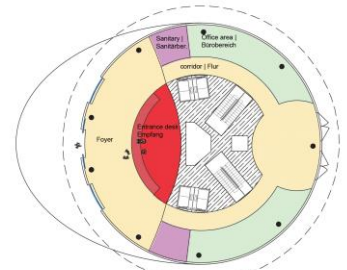
*Jedes Paneel hat eine Leistung von **0,33 MWh/anno** bei 5,0m/s und **2,63 MWh/anno** bei 10,0m/s*

Rechnen wir mit

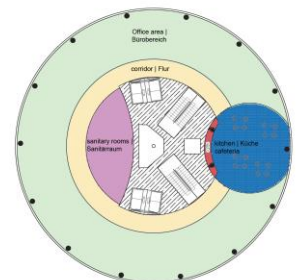
- 36 Paneelen unter 50m * **0,33 MWh/anno= 12 MWh**
- 73 Paneelen über 50m * **2,63 MWh/anno= 192 MWh**

haben wir eine Gesamtleistung von 204,00 MWh=0,204GWh,
d.s. bei 750 Windstunden erreichen wir 153 GWh/anno.

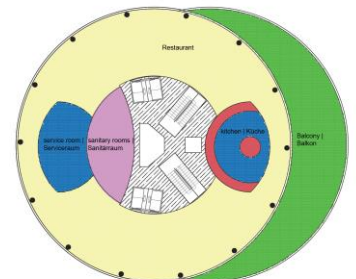
W. R. Brombacher

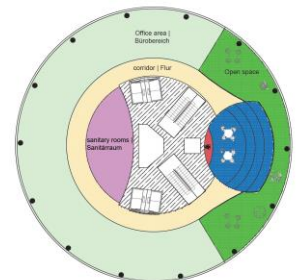
A-A | Foyer



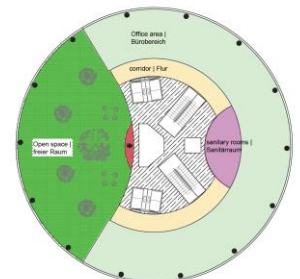
B-B | Standard Office Level



B-B | Gastro Level



D-D | free space 1



E-E | free space 2