

Rotor Blade Heating



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- The operating map represents the relationship between wind – rotor speed – generated power – blade angle.
- The actual operating data is compared with the expected values according to the operating map
- If there is a difference the WEC shuts down and:
 1. Without deicing system:
The WEC starts up again only after conditions no longer allow for ice formation.
(If this is a frequent scenario, noticeable yield losses may be the result.)
 2. With deicing system:
Deicing process starts

Rotor blade heating control

1. Ice detected
2. WEC shuts down
3. Rotor blade heating activated
4. Heating runs for a specified period of time
5. WEC starts up again automatically
6. If after startup, ice is still detected, the WEC shuts down again and the heating process restarts

→ Two different rotor blade heating systems

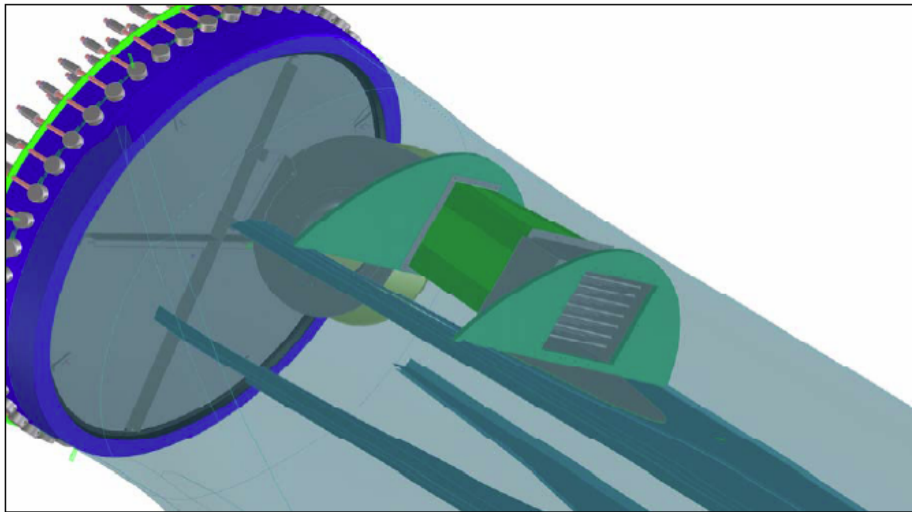


Figure 4: Blade heating integrated into rotor blade

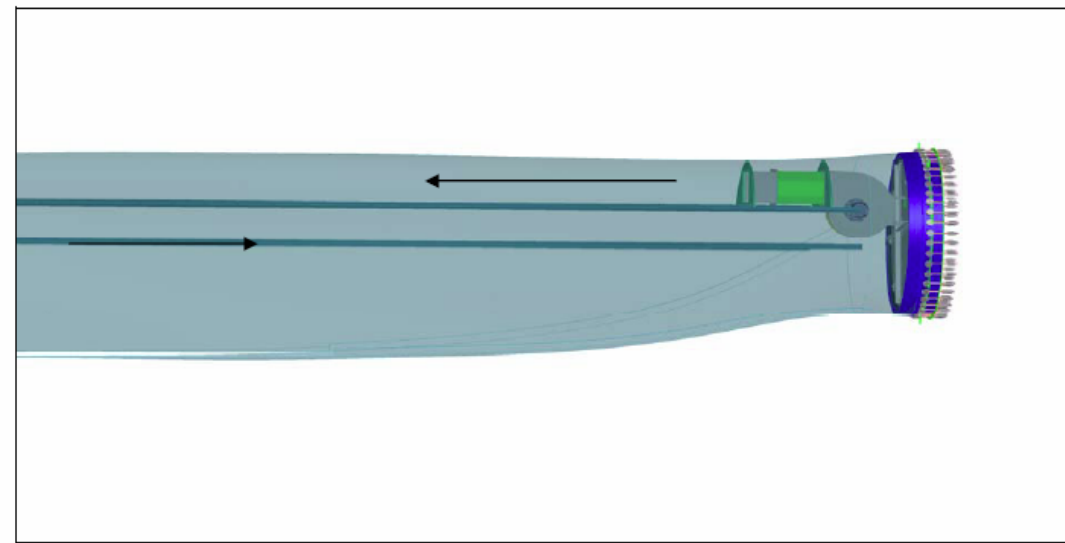


Figure 5: Representation of air flow