

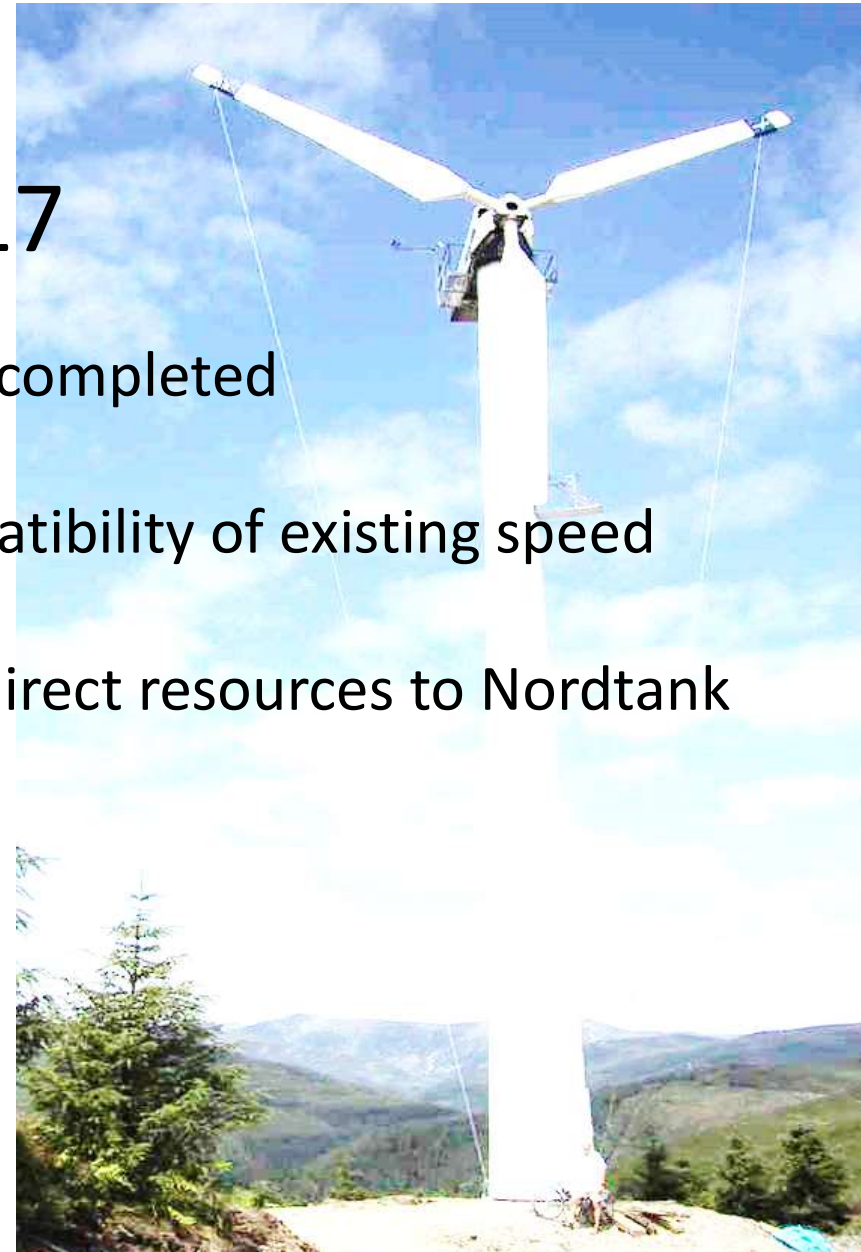


BDCR AGM June 2017
Technical Report

Rod Edwards

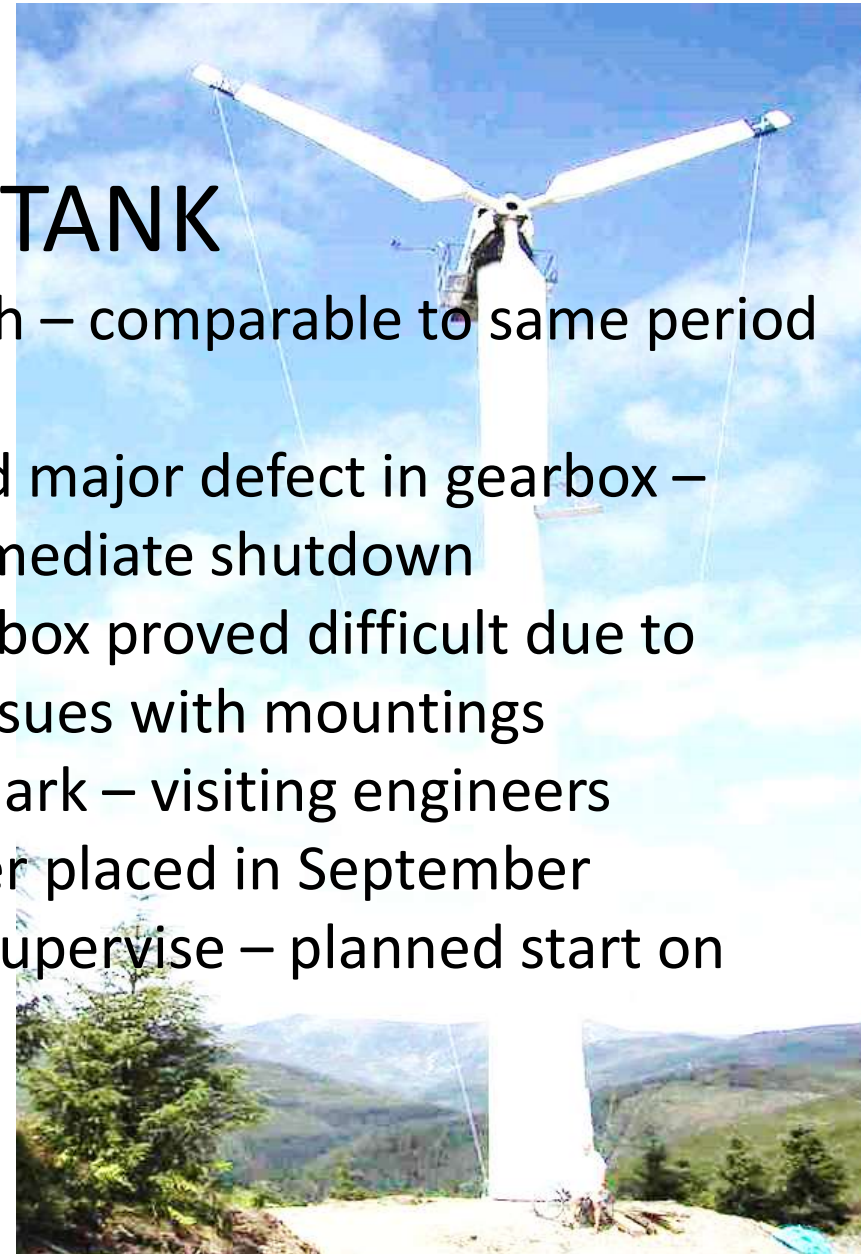
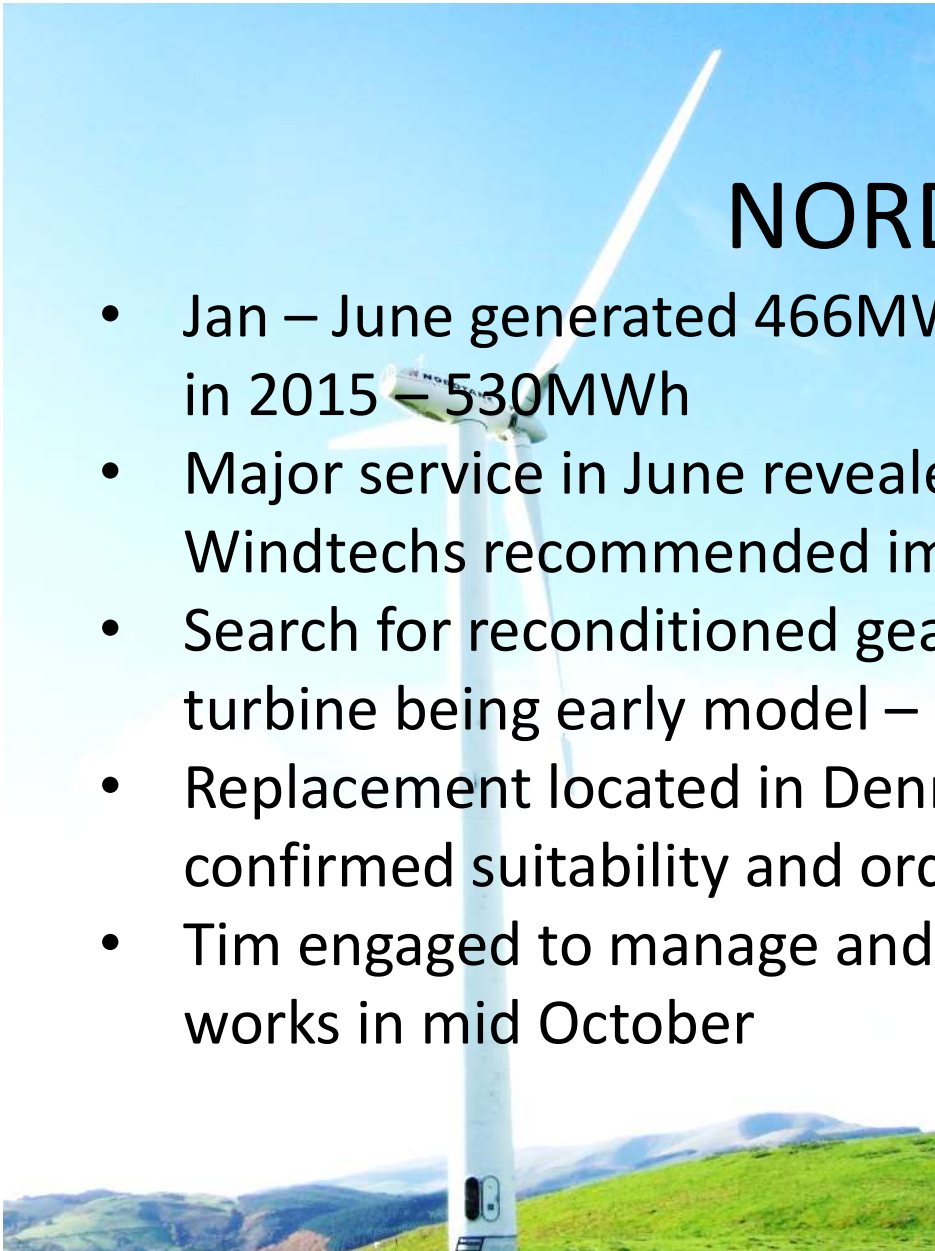
V17

- Most major mechanical work completed
- Commissioning commenced
- Problem identified with compatibility of existing speed sensors with new controller
- Work ceased due to need to direct resources to Nordtank gearbox



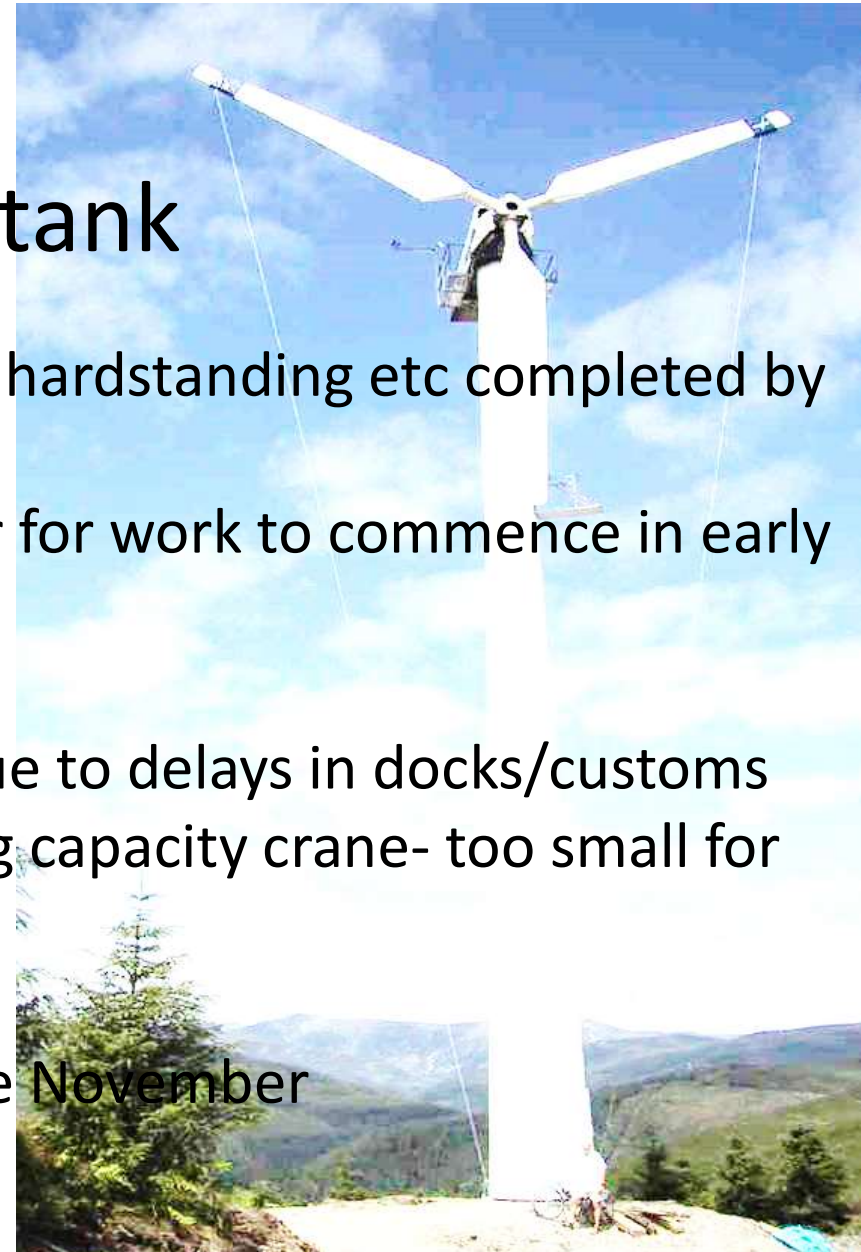
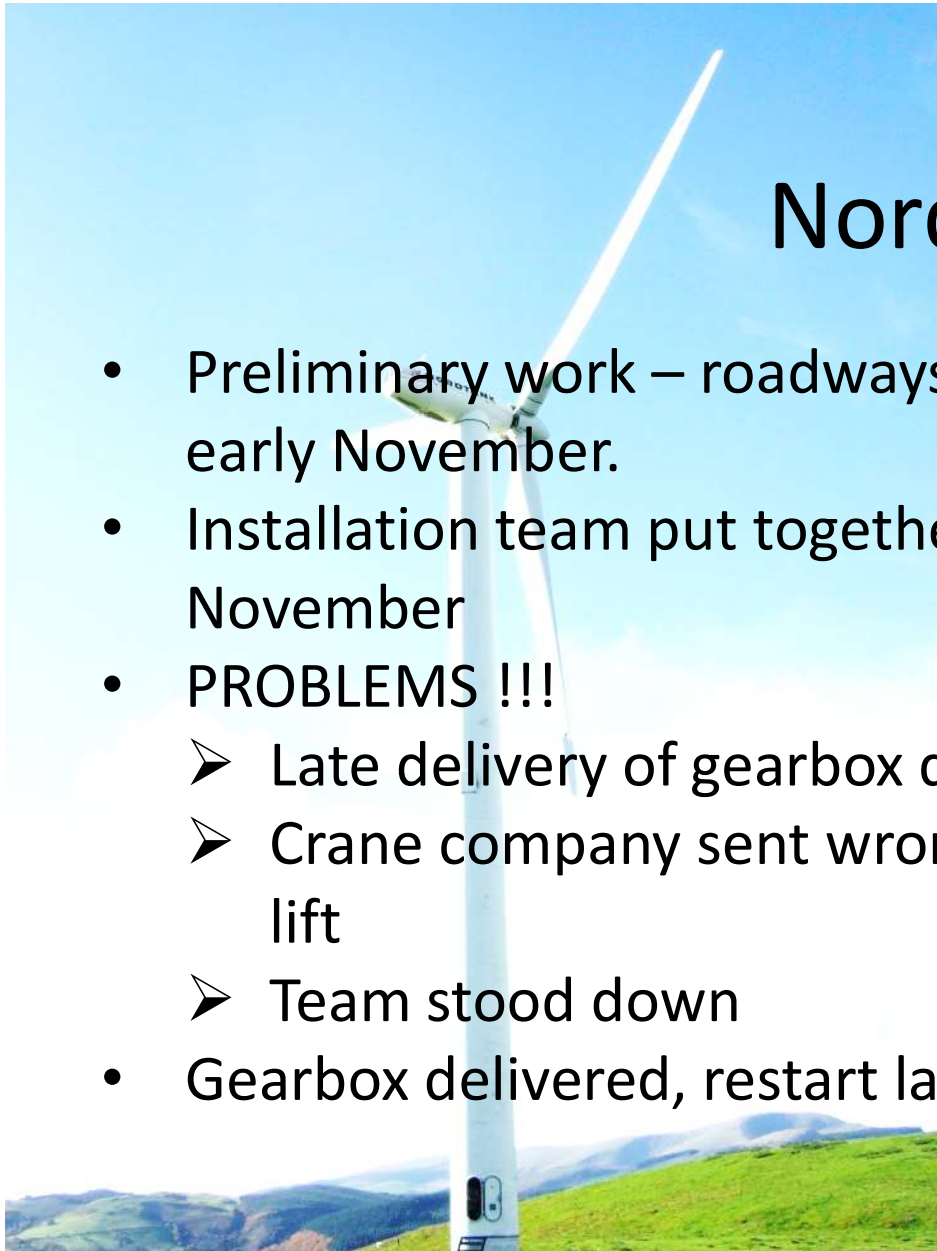
NORDTANK

- Jan – June generated 466MWh – comparable to same period in 2015 – 530MWh
- Major service in June revealed major defect in gearbox – Windtechs recommended immediate shutdown
- Search for reconditioned gearbox proved difficult due to turbine being early model – issues with mountings
- Replacement located in Denmark – visiting engineers confirmed suitability and order placed in September
- Tim engaged to manage and supervise – planned start on works in mid October



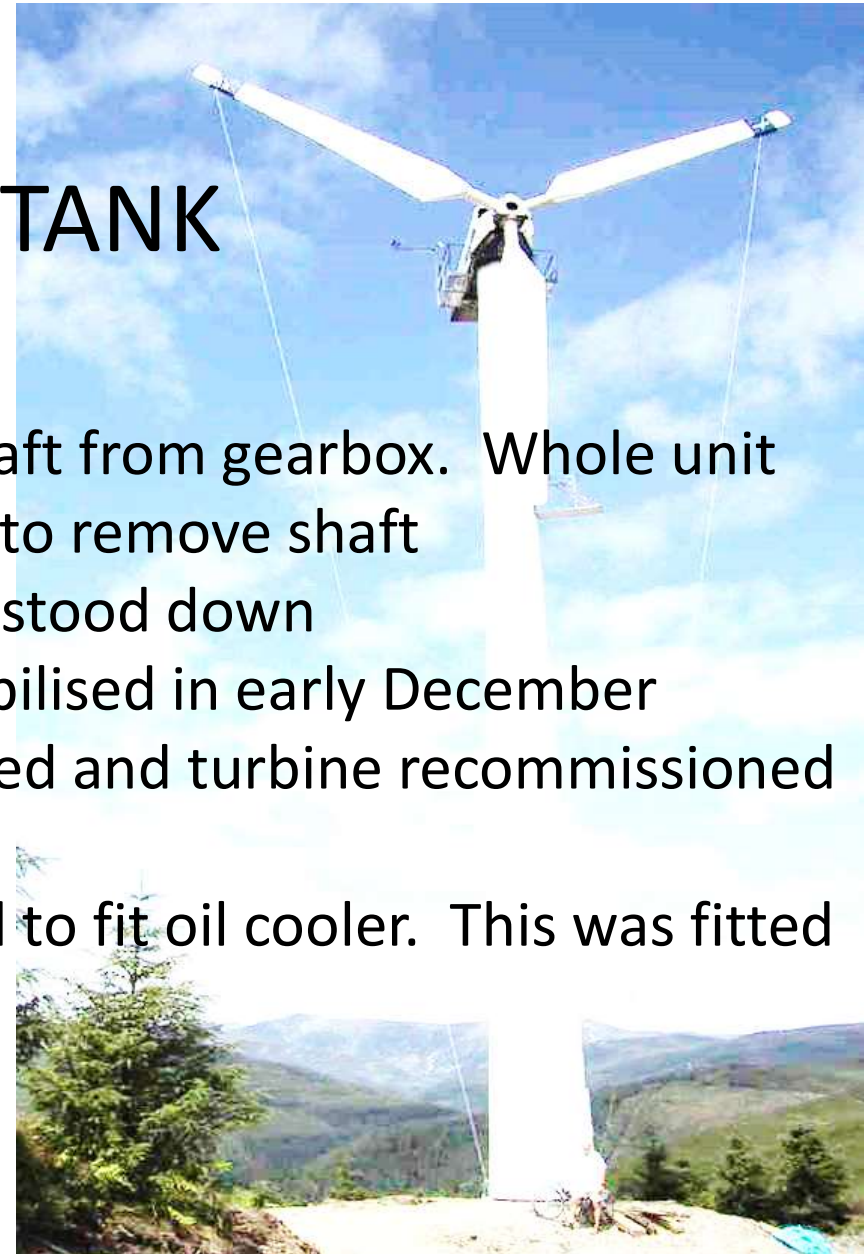
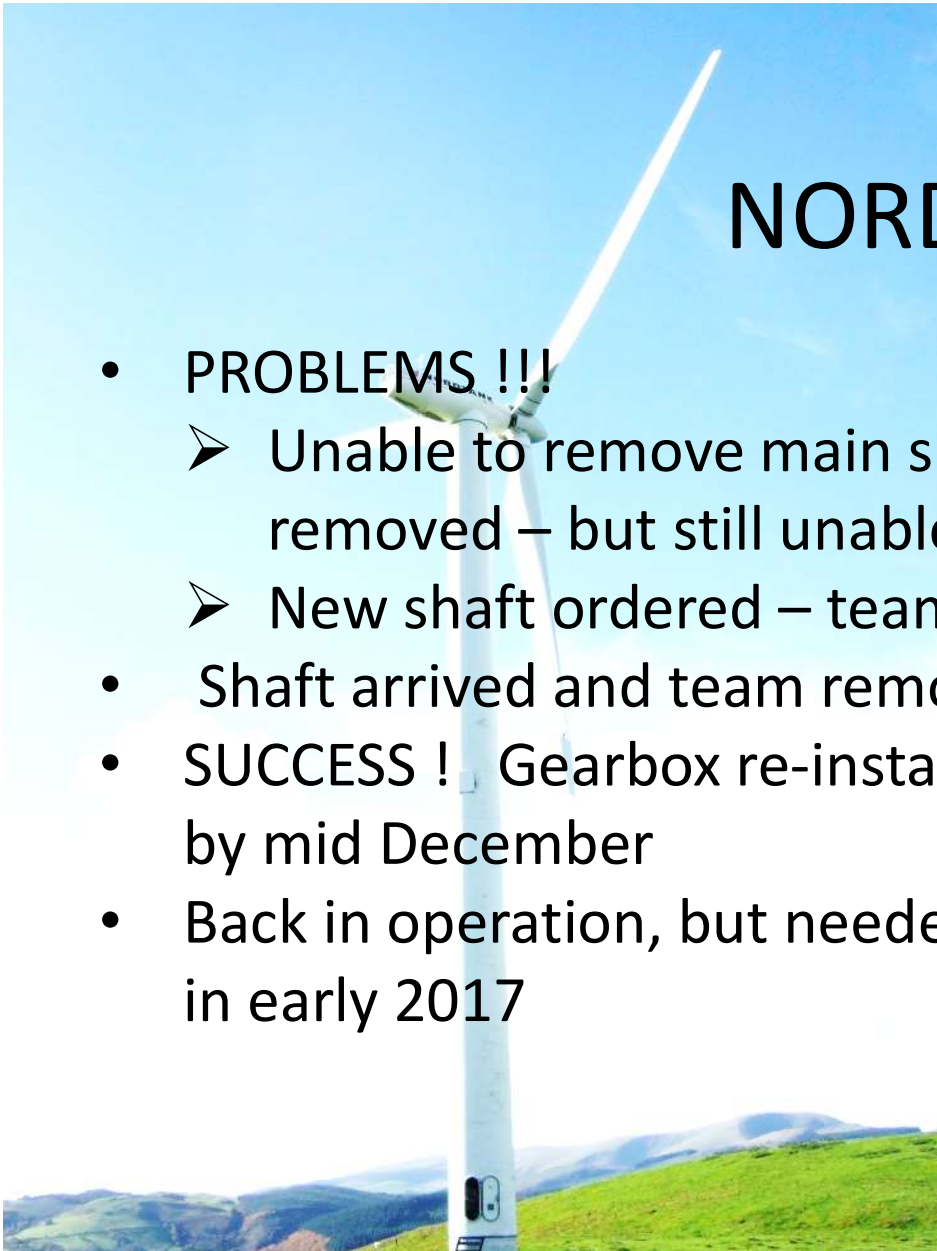
Nordtank

- Preliminary work – roadways, hardstanding etc completed by early November.
- Installation team put together for work to commence in early November
- **PROBLEMS !!!**
 - Late delivery of gearbox due to delays in docks/customs
 - Crane company sent wrong capacity crane- too small for lift
 - Team stood down
- Gearbox delivered, restart late November



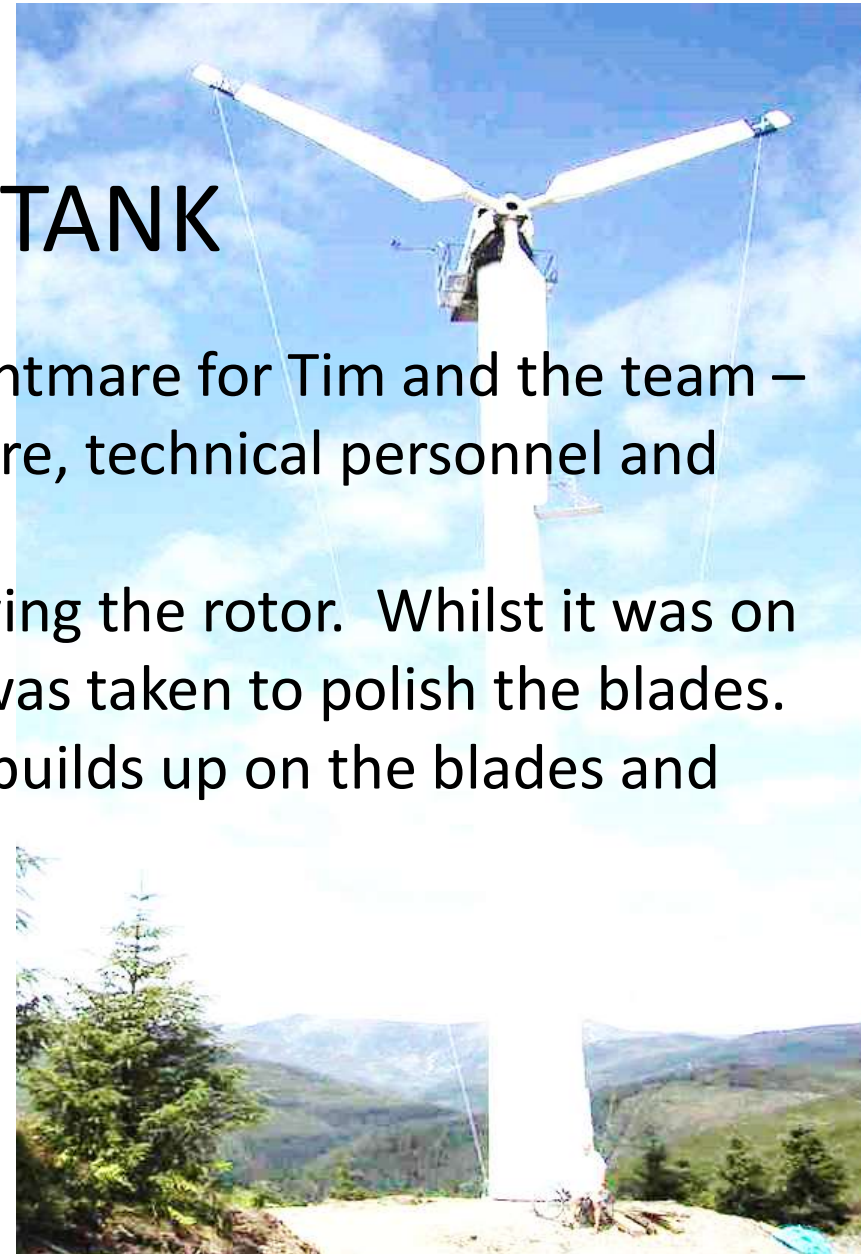
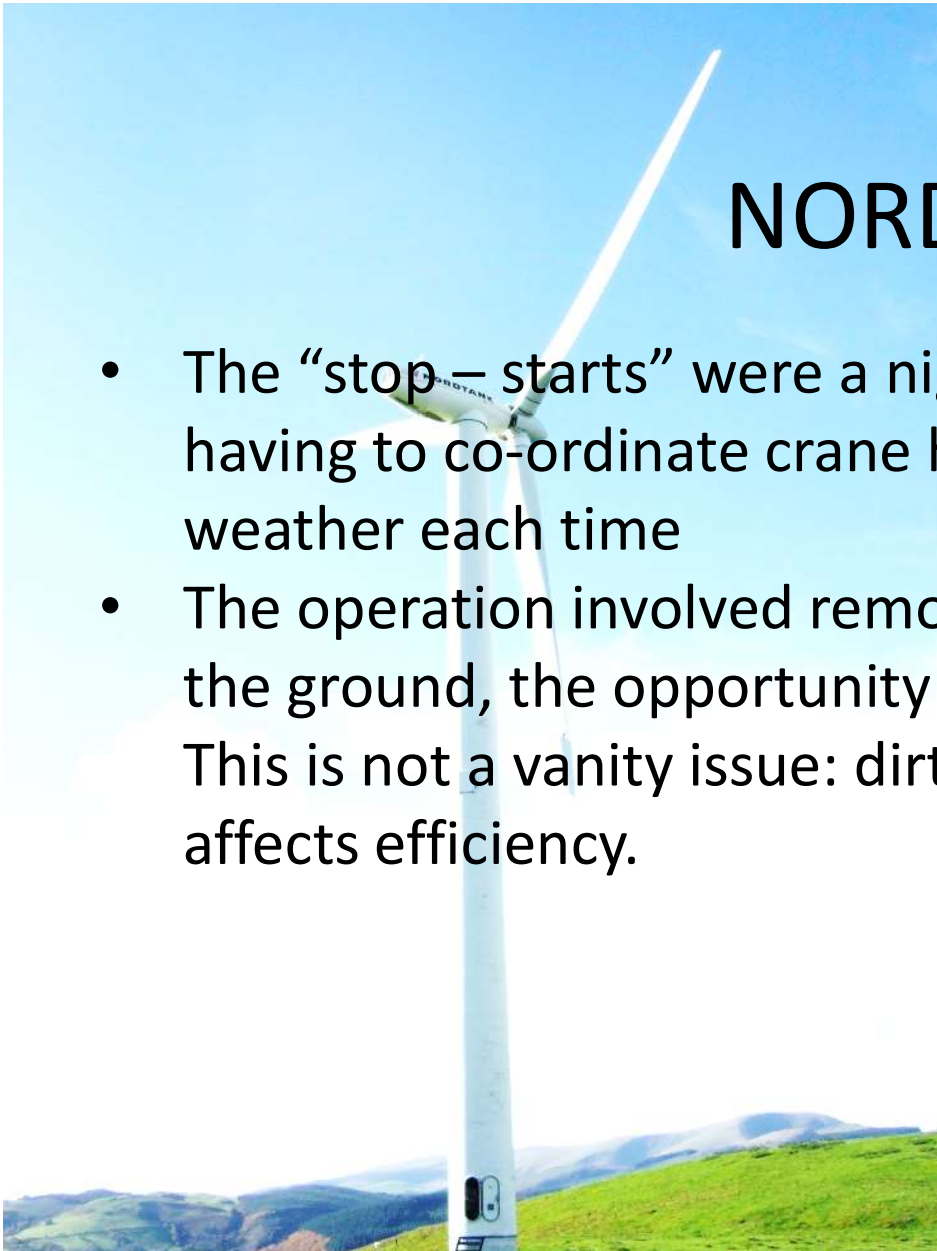
NORDTANK

- PROBLEMS !!!
 - Unable to remove main shaft from gearbox. Whole unit removed – but still unable to remove shaft
 - New shaft ordered – team stood down
- Shaft arrived and team remobilised in early December
- SUCCESS ! Gearbox re-installed and turbine recommissioned by mid December
- Back in operation, but needed to fit oil cooler. This was fitted in early 2017



NORDTANK

- The “stop – starts” were a nightmare for Tim and the team – having to co-ordinate crane hire, technical personnel and weather each time
- The operation involved removing the rotor. Whilst it was on the ground, the opportunity was taken to polish the blades. This is not a vanity issue: dirt builds up on the blades and affects efficiency.



NORDTANK

- Thanks to all concerned with the installation, particularly:
 - Tim Brewer, for masterminding a difficult and frustrating operations
 - John Williams and John Howarth for their support to Tim on site and the elbow grease !
 - Mike Phillips and Jacinta Macdermot for persuading the Bank to make several large payments to European suppliers in the absence of the Treasurer
- And [finally.....](#)

