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Deres referanse: 124441/KR
Svarfrist: **2016.06.07**
Søknadsnr.: 20150740 (**må oppgis ved svar**)
Søker: SINTEF Energi AS

Reasoned Statement in Patent Application #: 20150740

Basis of the opinion

Description pages 1-10 received 2015-06-08.
Claims nr. 1-24 (1-23) received 2015-06-08.
Figures nr. 1-5 received 2015-06-08.

Summary of the assessment

Independent patent claim 1, 7 and 12 are not new. Yet, the application contains features that can lead to a grant of patent.

Results of the novelty search

D1: US 2008260531 A
D2: US 2009185900 A
D3: US 2011260907 A
D4: WO 2009102001 A
D5: JP 2006125266 A
D6: JP 2009257322 A
D7: US 2015130618 A
D8: US 8742977 B

Assessment of patentability

The following is a reasoned statement with regard to novelty and inventive step, cf. Norwegian Patents Act (patl.) section 2 first subsection.

Novelty:

The patent application concerns a system and method for preventing collisions between wind turbine blades and flying objects. Independent patent claim 1 defines a method of controlling a wind turbine avoiding collision between at least one flying object and at least one wind turbine rotor blade, the method comprising controlling a rotational speed of the wind turbine rotor based on at least one measured position and at least one measured velocity of the at least one flying object.

Each one of documents D1-D6 reveals such a method as defined in claim 1. The subject matter of independent claim 1 does not meet the criterion of novelty according to patl. section 2 first subsection. Independent patent claims 7 and 12 are also known from each one of documents D1-D6.

The application's dependent claim 3 shows novelty to D1, defining that the method is estimating a perturbation of the rotational speed of the wind turbine rotor in order to avoid collision between the at least one flying object and the at least one rotor blade.

The subject matter of dependent claim 3 meets the criterion of novelty according to Norwegian Patents Act, section 2, first paragraph.

In addition, independent claim 15, dependent claims 4, 6, 9-10 and 16 meet the criterion of novelty according to Norwegian Patents Act, section 2, first paragraph.

Inventive step:

The objective technical problem to be solved by the present invention's dependent claim 3 with the knowledge of D1 may be regarded as how to avoiding impact from flying objects while keeping the turbine running. The problem is solved according to dependent patent claim 3, in that the method is estimating a perturbation of the rotational speed of the wind turbine rotor in order to avoid collision between the at least one flying object and the at least one rotor blade.

With the knowledge of D1, the person skilled in the art will not be able to solve the before mentioned problem and concluding with a method for preventing collisions between wind turbine blades and flying objects. Neither will a combination of D1-D8 lead to a method for preventing collisions between wind turbine blades and flying objects as defined in dependent patent claim 3. Thus, the subject matter of dependent claim 3 involves an inventive step, ref. Norwegian Patents Act, section 2, first paragraph.

Certain defects and observations

Claims in Norwegian language are missing.

Numbering of claims; "23" is numbered twice.

Instructions

For the application to lead to a grant of patent you are requested to file a new set of claims based on the statements above.

When claims are amended, the applicant must state where in the application the amendments can be found, ref. Patent Regulations, section 20. If description is amended, the applicant must specify which parts do not conform with previously filed description, and specify in which way the amendments imply anything new in respect of prior art, ref. Patent Regulations, section 21.

Due date for response

The applicant is invited to submit a written response within the due date above. If the applicant fails, within the due date, to submit observations or to take steps to correct a defect which has been pointed out, the application shall be shelved. However, the processing of the application may be resumed, ref. Norwegian Patents Act, section 15, third paragraph and Regulation relating to payments etc. to the Norwegian Industrial Property Office and the Board of Appeal for Industrial Property Rights (Regulation on fees), section 26. The due date may be extended, ref. Regulation on fees, section 6, fourth paragraph, see also «patentretningslinjene del A, kap. I, punkt 5.1» (guidelines for examination). For submission of documents see Regulations on fees, sections 1 and 2.

The Norwegian Patents Act, Patent Regulations, Regulations on fees and "patentretningslinjene" are available at the Norwegian Industrial Property Office's webpage, patentstyret.no.

Sincerely,

Kjell Amundsen

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Enclosed: Listed documents; search report.