

(2013) 07 IPAB CK 0004

In the Intellectual Property Appellate Board

Case No : ORA/41/2009/PT/CH And M.P. Nos.18/2010, 43/2010, 78/2010, 77/2011, 60/2013 In ORA/41/2009/PT/CH

Enercon (India) Limited

APPELLANT

Vs

Aloys Wobben

RESPONDENT

Date of Decision : 19-07-2013

Acts Referred:

Patents Act, 1970 — Section 2(1)(ja), 25, 58, 59, 64(h)

Citation : (2013) 07 IPAB CK 0004

Hon'ble Judges : Prabha Sridevan, J;D.P.S. Parmar, Technical Member

Bench : Division Bench

Advocate : R. Parthasarathy, Adarsh Ramanujam, Praveen Anand, Archana Shankar

Final Decision : Allowed

Judgement

D.P.S. Parmar, Technical Member

1. The applicant seeks revocation of the Patent No: 201538 (herein referred to as 538) granted to Dr. Aloys Wobben for invention ""A method for

operating a wind turbine with an electrical generator and a wind turbine with an electrical generator"". This patent application was filed on 22.10.2003

with a priority date 24.04.2001 and patent grant was published on 23.02.2003. The patent relates to a wind power installation in which the phase angle

of the power is varied if the voltage is outside a particular range of values. The application for revocation was filed by Enercon India Limited.

2. Learned counsel Mr. R. Parthasarathy appeared for the applicant and learned counsel Mr. Praveen Anand represented the respondent. Both the

counsel, besides arguing the matter at length, has also filed their written submissions on the preliminary issue as well as on merits.

3. From the records in Intellectual Property Appellate Board (IPAB), it was observed that this matter was heard by the earlier Board on 22.10.2010

and orders were reserved. At that time respondent sought amendment of claim 1 and 8 of the granted patent in view of the decision of the High Court

of Justice Chancery Division Patent Court in matter Alloy Wobben Vs Vestas Wind Technology limited (2007) EWHC2636((Pat). Since the Hon'ble

Technical Member Shri Chandrasekaran retired on 02.12.2010, decision was not issued. So this case was listed to be heard again. In the meantime,

the matter was transferred to the new counsel for the respondents. On completion of all the formalities, the matter was heard on 18.04.2013 and

13.05.2013.

4. On 18.04.2013 when case was heard Mr. R. Parthasarathy produced judgment of UK court (2008) EWHC 235(Pat) dated 08.02.2008 regarding

the same invention, where the inventor Dr Alloys Wobben had admitted that all claims except claim 6 and 7 were invalid and the counsel submitted

that it would not be open to the respondent to contend to the contrary.

5. Mr. R. Parthasarathy submitted that in the earlier decision of the High Court-Patent Court England dated NOV 14 2007 in respect of corresponding

EP patent No. EP (UK) 1386078 the Respondent and his expert Dr Taylor had consented that all claims except claims 6 and 7 were invalid. In these

proceedings the Respondent had amended the claims since the Patent Court had found the original claims were obvious in view of common general

knowledge which is ""Improvement of the grid compatibility of wind energy converters"" (D5) and Benchmark (D8). These documents are cited before

us too. The respondent had amended the claims before the UK Court. Proposed claim 1 (as granted claim 1+6) was held to valid. The proposed claim

2 (as granted claim 1+7) was held to be invalid. Therefore, the Learned Counsel for the Applicant raised a preliminary ground that having accepted

the UK court objections the patentee cannot be heard to say that the claims as granted will stand. In October 2011 the respondent has filed an MP

No. 77/2011 for amendment of claims wherein respondent had narrowed down the scope of claim 1 by adding element of claim-6.

6. Mr. Parthasarathy pointed out that although in U.K. the Respondent had accepted the invalidity of other claims, but in India the Respondent insisted

on maintaining the validity of the as granted claims and the amendments were

made without prejudice to the as granted claims. Further, the learned counsel relied upon the case of Aloys Wobben v. Vestas Celtic (2008) EWRC 235 (Pat) to point out that the claims which were being sought to be amended by M.P. 77/2011 were already invalidated by the U.K. Court. In fact there was a clear admission by the Respondent that the claims as granted were invalid. Further, the counsel also pointed out that the U.K. Court finally allowed another set of claims which were not even before the Hon'ble IPAB.

7. Mr. Praveen Anand submitted that he would argue only on the claims which have been granted by the UK court and not on the claims that have been admitted to be invalid. The counsel submitted that proceedings have taken place previously in the Justice Chancery Division, England and Wales High Court in respect of the corresponding EP (UK) patent EP1386078. In Decision by Hon'ble Justice Kitchen dated 14th November 2007 (120071 EWHC 2636 (Pat)) it was held that amended claim 1 (original claim 6 merged with claim 1) was not obvious. It was held that in Paragraph 276 of the decision that

I accept that the skilled person would appreciate the need for common control but I am not satisfied it would have occurred to him to give that control

to the wind turbine or wind farm operator. That is not something he would have had any reason to think of doing. I believe he would have approached

the issue on the basis that the network operator would retain control of the network assets. That would solve the problem which faced him.

In Decision by Hon'ble Justice Kitchen dated 8th February 2008 (I200S1 EWHC 235 (Pat)) Hon'ble Justice Kitchen decided on the amendments filed

in response to the decision dated 14th November 2007 where in paragraph 21 it has been held that

As I made clear in paragraphs 269 and 270 of my judgment, the inventions of proposed claims 1 and 7 require a control system which controls the

operation of a switching device in the network. The specification explains that the purpose of the invention is to prevent the condition of ""ping-pong"".

The capability to control the operation of the switching device must be such as to prevent this condition from occurring"". In paragraph 42, it was held

that ""In conclusion, the application is allowed in respect of proposed claims 1 to 8 and 10, subject to the slight change to proposed claim 7.

8. The learned counsel submitted that Respondent has amended claims of Indian Patent '538 in order to correspond to granted EP (UK) Patent '078

as allowed vide order (2008) EWHC 235 (Pat). The decisions mentioned above have been given after a full trial of more than a week where the

experts have been cross examined extensively. The findings of the Hon'ble Justice Kitchen stated in these judgments therefore, cannot be disregarded.

MP 77-2011 Amendments

9. Mr. Parthasarathy submitted that there was an inordinate delay in making the amendment to the specification/claims. He relied upon the IPAB's

orders passed in ORA/6/2009/PT/CR and ORA/07/2009/PT/CH. He submitted that the revocation petition was filed on 8th June, 2009 and the

Respondent filed a set of amended claims along with the counter-statement on 19th March, 2010. The matter was heard on 22nd October, 2010.

Further, the Respondent filed another M.P. for amendments on 24th October, 2011 to amend the claims which had different scope from that filed in

October, 2010. All this was done when the Respondent had clear knowledge that the claims pursued here had been admitted by him and his expert to

be invalid. The amended portion of claim 1 is reproduced below for clarity:

October, 2010- Amendment

Further that the method involves using a control system to directly or indirectly control the device in the network.

October, 2011 - Amendment

Further that the method involves using a regulating device to directly or indirectly actuate a switching- device in the grid.

10. Mr. Parthasarathy submitted that the U.K. Court held that the claims (same as the claims which were proposed in October, 2011) were invalid as

the scope of the amended claims was beyond the scope of the as granted claims.

11. Mr. Parthasarathy submitted that in this scenario, after considerable argument that the Respondent will not give up the ""as granted claims"", during

the early hearing, now the counsel for the Respondent stated that the Respondent was willing to confine the claims of the present patent No. 201538,

strictly to those which have been allowed in U.K.

12. Mr. Parthasarathy submitted that the Respondent had filed an M.P. on May 9, 2013 (4 days before hearing) wherein the Respondent had

proposed to amend the claims in line of U.K. granted patent. The Respondent proposed the following addition to the existing Claim 1:

May, 2013

Further characterized in that said method comprises using a regulation device to directly or indirectly control the operation of a switching device in the grid.

13. Mr. Parthasarathy submitted that the amended claim is beyond the scope of the 'as granted claims'. It is important to note that the Respondent has

introduced the term comprises which makes the claim broader than the 'as-granted claims' (it had 'involves').

14. The Learned counsel for the applicant relied on IPAB's order in Enercon (India) Limited v. Aloys Wobben [No. 1 09 of 2013] passed on 31st

May, 2013 wherein the Hon'ble IPAB had stated that during amendments introduction of term 'comprising' amounts to widening of the scope of the

granted claims. In this Patent, the Patentee had introduced the term comprising instead of with. This amendment should not be permitted since the

Respondent has originally only claimed using a regulation device whereas in the amended claims, the Respondent claimed more than the regulating

device. Thus, in the present case also the Respondent has broadened the scope of the Patent and hence the amendment should be dismissed.

15. The Learned counsel for the respondent submitted that Section 58 of the Act provides for the option of permitting the patentee to amend the

complete specification in such manner and subject to such terms that the Hon'ble Board thinks fit, and in the event that the Board decides that the

patent is invalid, it may still allow the specification to be amended instead of revoking the patent. The provision therefore clearly envisages that during

invalidity proceedings, the patentee at its instance can seek permission to amend the specification. Furthermore, the power vested with this Hon'ble

Board and the High Court can be exercised even if invalidity of the originally granted claims is found.

16. The Learned counsel for the respondent submitted Section 59 of the Act lays down that the amendments sought shall:

- Only be by way of disclaimer, correction or explanation;
- Be for the purpose of incorporation of actual fact;
- Not be so as to introduce new matter into the specification before the

amendment;

- Not be so that any claim would not fall wholly within the scope of a claim of the specification before the amendment,

17. The Learned counsel for the respondent submitted that a patent therefore can be amended at any stage of its life, provided that the amendment

sought is clarificatory or elaborative in nature and also, that it does not broaden the scope of the claim present in the original invention, he relied on

[AGC Flatglass Europe SA v. Anand Mahajan & Ors., 2009 (41) PTC 201 (Del.) - para 17, 8, 20&21, Solvay Fluor GmbH v. E.I. DuPont de

Nemours and Company, IPAB, Order No. Ill of 2010-para 23 & 25]

18. The Learned counsel for the respondent submitted that amendments sought Vide Counterstatement dated 19th March 2010 where in line with the

amendments found acceptable vide the order (2008) EWHC 235 (Pat) by Hon'ble Justice Kitchin. Amended Claim 1 as per the counterstatement is as

below:-

Method for operating a wind turbine with an electrical generator, drivable by a rotor, for supplying electrical power to an electric grid, in particular to

loads connected thereto, wherein reactive power is fed into the electric grid and said reactive power is predetermined by a phase angle ϕ describing

an angle between the current and the voltage of the electrical power supplied, the phase angle thus determining the proportion of reactive power in the

power that is supplied by the wind turbine, characterized in that the phase angle ϕ is changed in response to the amount of at least one voltage

measured in the grid, that the phase angle remains unchanged as long as the grid voltage is between a predetermined lower reference value (U_{min})

and a predetermined upper reference value (U_{max}), the lower voltage value being less than a reference voltage and the predetermined upper voltage

value being greater than a predetermined reference voltage, and that, when the predetermined upper voltage value (U_{max}) is exceeded, or the

predetermined, lower voltage value (U_{min}) is undercut, the size of the phase angle increases on any further increase or decrease in the grid voltage;

and further that the method involves using a control system to directly or indirectly control the operation of a switching device in the network.

Miscellaneous Petition No. 77 of 2010 - Amendment of Claim

19. The Learned counsel for the respondent submitted that further amendments

were filed vide a miscellaneous petition MP 77 of 2011 on 24th

October 2011 to bring further amendments on record, which were made in order to merge the original claim 6 of the Indian Patent '538 with the

original claim 1 of the Indian Patent '538. No terminology was changed to correspond to the EP (UK) patent' 078. Amended Claim 1: -

Claim 1: -

Method for operating a wind turbine with an electrical generator, drivable by a rotor, for supplying electrical power to an electric grid, in particular to

loads connected thereto, wherein reactive power is fed into the electric grid and said reactive power is predetermined by a phase angle ϕ describing

an angle between the current and the voltage of the electrical power supplied, the phase angle thus determining the proportion of reactive power in the

power that is supplied by the wind turbine, characterized in that the phase angle ϕ is changed in response to the amount of at least one voltage

measured in the grid, that the phase angle remains unchanged as long as the grid voltage is between a predetermined lower reference value (U_{min})

and a predetermined upper reference value (U_{max}), the lower voltage value being less than a reference voltage and the predetermined upper voltage

value being greater than a predetermined reference voltage, and that, when the predetermined upper voltage value (U_{max}) is exceeded, or the

predetermined, lower voltage value (U_{min}) is undercut, the size of the phase angle increases on any further increase or decrease in the grid voltage;

and further that the method involves using a regulating device to directly or indirectly actuate a switching device in the grid.

Amendments Vide Miscellaneous Petition dated 9th May 2013

20. The Learned counsel for the respondent submitted that the amendments filed vide MP No. 77 of 2011 were given up and further amendments

were filed corresponding to the claims found acceptable vide the order (2008) EWHC 235 (Pat) by Hon'ble Justice Kitchin. The terminology was kept

consistent with the terminology used in Indian Patent '538 and effectively, amendments filed with the counterstatement were adopted once again albeit

change in a few terms. Amended Claim 1 reads as: -

Method for operating a wind turbine with an electrical generator, drivable by a rotor, for supplying electrical power to an electric grid, in particular to

loads connected thereto, wherein reactive power is fed into the electric grid and

said reactive power is predetermined by a phase angle ϕ describing an angle between the current and the voltage of the electrical power supplied, the phase angle thus determining the proportion of reactive power in the power that is supplied by the wind turbine, characterized in that the phase angle ϕ is changed in response to the amount of at least one voltage measured in the grid, that the phase angle remains unchanged as long as the grid voltage is between a predetermined lower reference value (U_{min}) and a predetermined upper reference value (U_{max}), the lower voltage value being less than a reference voltage and the predetermined upper voltage value being greater than a predetermined reference voltage, and that, when the predetermined upper voltage value (U_{max}) is exceeded, or the predetermined, lower voltage value (U_{min}) is undercut, the size of the phase angle increases on any further increase or decrease in the grid voltage; and further characterized in that said method comprises using a regulation device to directly or indirectly control the operation of a switching device in the grid.

21. Mr. Anand submitted that the patentee was willing to confine the claims of the present patent strictly to those which have been considered valid in UK. The learned counsel submitted that the patentee seeks to substitute the exiting claims which are with the claims enclosed with M. P. which are similar to claims allowed in UK barring five changes given below.

- a. The word "wattless component" in the UK patent is changed to "reactive power";
- b. The word "electrical network" in the UK patent is changed to "electrical grid".
- c. The phrase ".....comprises using a control system to directly or indirectly control the operation of a switching device in the network" in the UK patent is altered to "..... comprises using of a regulation system to directly or indirectly control the operation of a switching device in the grid:'
- d. The words "volt amperes" in the UK patent is changed to the word "power" since they are completely interchangeable; and
- e. The word "undershot" in the UK patent is referred to as "undercut".

The Learned counsel submitted that however, the patentee is willing to retain the claims allowed in UK in their modified form.

22. Mr. Praveen Anand submitted that there was no delay in moving the

amendments as seen from the facts below

a. The order passed by the Hon'ble High Court of Justice, Chancery Division, Patents Court, London is of 14th November, 2002.

b. The order passed by the Hon'ble High Court of Justice, Chancery Division, Patents Court, London on the application to amend UK Patent No.

1386078 is of 8th February, 2008.

c. Thereafter the Patentee filed an appeal against the aforesaid order which was dismissed by the Court of Appeals on 5th December, 2008.

d. The present revocation petition was filed by the Appellant on 8th June, 2009 and served on the Patentee on 23rd September, 2009.

e. The counterstatement along with the proposed amendment was filed on 19th March 2010.

He submitted that the amended claims are now narrow and restricted. He submitted that the amendment cannot be disallowed merely because of the delay.

23. We pause here for a moment to observe the conduct of the respondent who knew about the invalidation of all the claims except for claims 6 and

7. The respondent took no action to amend the claims in respect the impugned patent granted in India. It is pertinent to note that the application before

High Court of Justice, Chancery Division, Patents Court, London was for consideration of amendment proposed by the patentee. In above said case

Justice Kitchen observed that

It is now conceded by Mr. Wobben that all the claims are invalid except for claims 6 and 7. Consequently, I have before me an application to amend

the claims. In light of the evidence that emerged at the trial the case of infringement is not pursued. Vesta contends that claims 6 and 7 are invalid for

lack of novelty, obviousness and insufficiency. In addition it opposed the application for amendment.

and held

The 078 patent

286. As to validity

i) All claims (save 6 and 7) as granted are accepted to be invalid

ii) Proposed claim 1 was not obvious over the common general knowledge

iii) Proposed claim 2 was obvious over the common general knowledge

24. This decision was available with respondent in NOV 2007. It is only when the revocation application was filed in 2009 the respondent proposed the amendments (Annexure A) filed with reply/counter statement stating that 'with a view to avoid any sort of confusion the respondent hereby proposes to amend claim 1 and 8'. It was within the knowledge of the respondent that even claim 7 (Proposed claim 2) was found to obvious over the common general knowledge in the above decision of the UK Court. Further in Miscellaneous Petition No. 77/2011, the patentee sought amendment in October 24, 2011 and stated that 'These amendment should NOT be considered as an admission of deficiency in claims currently on record'. We bear in mind this conduct.

25. The amended claims in Miscellaneous Petition No. 77/2011 were sent to the Controller, who has given his opinion on 04.06.2013 that the proposed amendments in the claims are not allowable u/s. 59 and 10(4) of the Patents Act. This opinion was also furnished to both the parties so that they could respond to it. The opinion of the Controller is reproduced below

I am of the opinion that this invention relates to a method for operating a wind turbine with an electrical generator and a wind turbine with an electrical generator that is capable of even when the output of non-reactive power fluctuates, of reducing or at least of insignificantly increasing the unwanted fluctuation in voltage at a predefined point in the grid.

The independent original claim 1 relate to a method for operating a wind turbine with an electrical generator. Now the dependent claim 6 has been merged with the original method claim I. The independent original claim 8 relate to a wind turbine with an electrical generator. In the original set of system/device claims 8-9 which relate to a wind turbine, the feature of claim 6 was not there. Now, the subject matter of initially filed claim 6 has been further added (i.e., not merged) to the original claim 8.

The original claim 10 which relate to a wind farm is purely an application claim and the inventive feature lies only in the post-characterized portions of the original claims 1 and 8. It should be clearly understood the regulation device is not a part of wind turbine. That's is the main reason the feature of claim 6 has been made as dependent claim on original method claim 1 and also for the same reason this feature has not been claimed as a part of original claim 8.

Moreover, it is also evident from fig. 1 and from the description, the electrical control and regulation device (10) is not a part of wind turbine (2).The

wind turbine works even without the feature of regulating device.

The reference numeral 10 refers/given to electrical control and regulation device/regulation system/regulation device. For example in the original claim

6 the term 'regulation system' is used. But in the amended claim 1 the term 'regulating is used. The terminologies are different and inconsistent with

each other.

In the description page no. 7 para 1 it is mentioned that the control and regulation device 10 has a regulating device. It is unclear from the said line

device' is used. The terminologies are different and inconsistent with each other how a regulating device comprises again the same regulating device.

Therefore, it is concluded that the scope of the amended claims 1 and 7 has been changed in comparing with the original claims 1 and 8 since claim 6

cannot be a part of the said original claims 1 and 8. Hence the scope of protection of the amended claims is beyond the scope of the original claims.

Hence the proposed amendments in the claims are not allowable u/s. 59 and 10(4) of the Patents Act, 1970.

26. The Learned counsel for the applicant submitted that the Applicant agrees with the comments and recommendation of the learned Controller

which in fact supports the stand of the Applicant.

27. The Learned Counsel for the respondent submitted during the hearing that they are defending only the claims as amended. Consequently, we have

before us only claims 6 and 7.

INVENTIVE STEP

28. Mr. Parthasarathy argued the invalidity of the subject patent on the grounds of lack of inventive step in view of ""Improvement of the grid

compatibility of wind energy converters"" (D5) and Benchmark (D8).

29. The Learned Counsel for the applicant submitted that the object of the '538 patent was to reduce unwanted voltage fluctuations in the grid and the

same was achieved by changing the phase angle of the electrical power output of the wind turbine according to the voltage measured in the grid.

30. The Learned Counsel for the applicant submitted that phase angle is the angle by which the voltage leads or lags the current. Thus, if phase angle

is 0 then voltage and current are in phase with each other. The fundamental equation of power is $P = V \times I \times \cos \phi$ where P = Power; V = Voltage;

I , = Current and ϕ = Phase angle, the angle between the voltage and current. When $\phi = 0$ i.e. voltage and current are in phase with each other the

power output is ideal and maximum as $\cos \phi = 1$. Thus, when $\phi = 0$ then

$$P = V \times I.$$

31. The Learned Counsel for the applicant submitted that when ϕ is not equal to 0 as for example $\phi = 30^\circ$, then $P = V \times I \times \cos 30^\circ$. Thus, the equation

in such a case will be $P = V \times I \times 0.86$ as $\cos 30^\circ = 0.86$. Hence, the power output when $\phi = 30^\circ$ will be less than what the power output will be when ϕ

$= 0$. Thus, by changing the phase angle reduction or increase of power is possible. By increasing or decreasing the power it is possible to vary the

voltage in the grid.

32. The Learned Counsel for the applicant submitted that avoiding unwanted fluctuations in the grid by changing the phase angle according to the

voltage measured in the grid is the inventive step of the '538 patent and the same has been admitted by the Respondent to be obvious to a person

skilled in the art.

33. The Learned Counsel for the applicant submitted that the proposed amended claim 1:

A method for operating a Wind turbine with an electrical generator, drivable by a rotor, for supplying electrical power to an electric grid, in particular

to loads connected thereto wherein reactive power is fed into the electric grid and said reactive power is predetermined by a phase angle ϕ describing

an angle between the current and the voltage of the electrical power supplied, the phase angle thus determining the proportion of reactive power in the

power that is supplied by the wind turbine, characterized in that the phase angle ϕ is changed in response to the amount of at least one voltage

measured in the grid, that the phase angle remains unchanged as long as the grid voltage is between a predetermined lower-reference value (U_{min})

and a predetermined upper reference value (U_{max}), the lower voltage value being less than a predetermined reference voltage, and the predetermined

upper voltage value being greater than a predetermined reference voltage, and that, when the predetermined upper voltage value (U_{max}) is exceeded,

or the predetermined lower voltage value (U_{min}) is undercut, the size of the

phase angle increases on any further increase or decrease in the grid voltage, and further that the method comprises using a control system to directly or indirectly control the operation of a switching device in the network.

34. The Learned Counsel for the applicant submitted that the emphasized portion (in bold) is the addition made in the original claim 1. The Learned Counsel contended that the method described in Claim 1 till the bold portion has been admitted to be known and not involving any inventive step. The proposed claim 1 is directed towards a method in which the control system which is used to change the phase angle in response to the voltage measured in the grid i.e. network, to maintain the voltage in the grid within a predefined limit also actuates a switching device in the grid. The Learned Counsel argued that a known control system is now used to control the operation of a switching device in the network. The control system which is in the generator side is used to actuate a stepping transformer (switching device) present in the network side.

35. The Learned Counsel for the applicant submitted that in paragraphs 3 and 5 at page 2 and paragraph 4 at page 10 of the complete specification it was disclosed that use of a switching device like stepping transformer in the grid for maintaining the grid voltage within a predefined limit was well known in the art. The Learned Counsel for the applicant argued that the control system on the wind turbine alters the phase angle to maintain the grid voltage in the specified range whereas the stepping transformer and the corresponding control system on the network (grid) also perform the same function of maintaining the voltage within a predefined limit.

36. The Learned Counsel for the applicant submitted that in paragraph 5 at page 11 of the complete specification it is disclosed that there were two controls working to achieve the same result i.e. to maintain the grid voltage within a predefined limit. The Learned Counsel submitted that when there are two independent control systems working towards the same objective, they may work at cross purposes. Thus, if both the controls work in the same tolerance band the combined effect will be that instead of restoring the grid voltage, each control will work to compensate for the other resulting in what is called as the ping-pong effect. The solution to the problem of ping-pong effect is to make one subordinate to the other i.e. give control of

both the switching device and the control systems to a single entity i.e. common control.

37. The Learned Counsel for the applicant invited our reference to page 112 of paper book paragraph 275 and submitted that the expert of the

Respondent had conceded before High Court of Justice, Chancery Division, Patents Court, London that it would be obvious to a person skilled in the

art that a wind turbine facility supplying reactive power would produce a risk of ping pong effect and the obvious solution to the problem would be to

bring the control system and the tap change transformer i.e. switching device under common control.

38. The Learned Counsel for the applicant submitted that in order to provide common control there are only two options -- either the control system of

the switching device in the network (grid) controls the control system/device in the wind turbine or vice versa. Thus, the question here is which control

system will be subordinate to the other. Referring to paragraph 275 and paragraph 276 of High Court of Justice, Chancery Division, Patents Court,

London decision the counsel submitted that the expert of the Respondent had submitted that 'the inventive step (technical advance) in the proposed

claim 1 lies in shifting the common control from the network operator (as hitherto done) to the wind turbine operator (not in vogue at that time), who

controls the phase angle change. The UK court accepted the submission of the expert of the Respondent.

39. The Learned Counsel for the applicant submitted that paragraph 2 under the heading Teaching of Patent 538 of the expert affidavit submitted by

the Respondent and paragraph 28 at page 53 of the application and it was submitted that in 1997 wind farms were connected to weak grids. If a wind

turbine is connected to a strong grid it will not be in a position to control the switching device, thus in a strong grid it will be obvious to a person skilled

in the art to give control of the wind turbine control system to the network operator. If a wind turbine is connected to a weak grid, it will be possible to

control the switching device from the turbine side. In case of weak grids there is practically no difference between the grid side and the generator

side. Thus, the wind turbine operator has to control both the sides. In a weak grid, a wind turbine is connected to a select set of loads, so the wind

turbine has to take care of both the generation and voltage fluctuations. Hence, in 1997, when wind turbines were connected to a weak grid, it would

be obvious to a person skilled in the art to give control of the switching device to the wind turbine operator.

40. The Learned Counsel for the applicant submitted the inventive step of the proposed claim 1 was not at all a technical advance (which is what is required for inventive step) but was actually a question of agreement between the network operator and the wind turbine operator, as to who is willing to yield control to the other. Thus, giving control to the wind turbine operator means the network operator has agreed to give control. Hence, shifting of common control from the network operator to the wind turbine operator is not imparting any inventive step to the proposed claim 1 nor does it contribute any technical advance over the existing knowledge. It is purely a question of commercial and regulatory requirement based on the agreement between the two parties. If the grid was the stronger party, controlling much more power generation and distribution, they would keep the common control, whereas if the wind turbine generator was the stronger party the common control will be with them.

41. The Learned Counsel for the applicant submitted that probably the UK Court was not presented with the above arguments. Thus, it had erred in concluding that shifting the common control from the network operator to the wind turbine operator was imparting inventive step to proposed claim 1.

42. The Learned Counsel for the applicant submitted that in paragraph 274 of the UK DECISION [at page 112] Professor Green, expert of the opponent in the UK Court, had submitted that the inventive step of proposed claim 1 was obvious to a person skilled in the art because when there are two controllers trying to act on the same variable with slightly different target values then it is obvious that one must be subordinate to the other. The UK court also accepted this submission that it would be obvious to give common control. What it found to be inventive was to give the common control to the wind turbine operator. Thus, it is a question whether the control system is subordinate to the switching device or the switching device is subordinate to the control system. It was submitted that subordinating one device to the other was not imparting any inventive step.

43. The Learned Counsel for the applicant submitted that Professor Green had also submitted that the commercial and regulatory framework rendered it radical to give control of the switching device to the wind turbine operator. It was submitted that giving control to the wind turbine operator is

because of the commercial and regulatory framework, which is not relevant for considering, whether the invention contributes any technical advance over the existing knowledge.

44. The Learned Counsel for the applicant referred to paragraph 275 at page 112 of the application and submitted that giving control of switching

device to the wind turbine operator has to involve an interaction between the network operator and the wind turbine operator. Thus, this is entirely a

question of negotiation and does not involve any technical advance over the existing knowledge. Further, if a wind turbine is connected to a strong grid,

it may not be in a position to influence the grid i.e. network operator is the bigger player, and then the control has to be given to the network operator.

In case of a weak grid a wind turbine is in a position to influence the grid then the control can be given to the wind turbine operator.

45. The Learned Counsel for the applicant referred to paragraph 276 at page 113 of the application and submitted that the Hon'ble Judge of the UK

court had concluded based on the then prevailing practice that it was not obvious to a person skilled in the art to give control of the switching device to

the wind turbine operator. It was submitted that consideration of prevailing practice or practical reality was irrelevant for determining whether the

shifting of the common control from the network operator to the wind operator was imparting any inventive step. Thus, the proposed claim 1 was

obvious.

Respondents reply

Onus on the applicant

46. Mr. Praveen Anand submitted that onus to prove revocation is on the applicant. He submitted that during the course of arguments, the counsel for

the Applicant did not rely upon the affidavits of its expert witnesses, Mr. Dinesh Kumar Jain and Mr. Dilip Trasi, and therefore, it should be

considered that the Applicant has given up the evidence in support of the averments made in the present revocation. He submitted that that the

counsel for the Applicant argued the case based only on the judgment of Hon'ble Justice Kitchin (2007) EWHC 2636 (Pat) and (2008) EWHC 235

(Pat). According to the learned counsel the Applicant has therefore, led no evidence to prove that the subject patent is obvious. He relied on IPAB

decision in Travancore Mats and Matting Co. Order 47/2012. [Para 16 and 17] F.

Hoffmann-La Roche Ltd. & Anr. v. Cipla Ltd.; at para. 66).

47. The Learned Counsel for the respondent submitted that as the subject patent is only challenged on the ground of obviousness, the primary

evidence of this challenge is in the form of expert evidence. [Generics [UK] Limited trading as Mylan v. Yeda Research and Development Co. Ltd.,

Teva Pharmaceutical Industries Limited, (2012) EWHC 1848 (Pat) at para. 280). According to the counsel determining obviousness of the subject

patent can neither be based merely on oral arguments of counsel nor can it be simply learned from contents of documents. In the present case, the

Applicant did not file any evidence along with the revocation petition and also did not rely on expert evidence in support of its case and has failed to

discharge its onus,

48. According to the learned counsel for respondent the test of obviousness is a subjective one and when the applicant has not led in any evidence, he

cannot be said to have proved the case of obviousness. Though experts had given evidence on the side of the applicant, the evidence was not relied

on. He submitted that the obviousness test must be a subjective one, and merely because the invention is simple would not detract from its novelty.

P. Sita: Person Skilled In The Art

49. Mr. Praveen Anand repeatedly urged us that the issue Who is the person Skilled in The Art must be decided. According to the counsel the law

requires that the evidence led by the Applicant clearly defines the person skilled in the art and the attributes of such a person. This is as an essential

pre-requisite to the obviousness analysis. Therefore, it was incumbent upon the Applicant to lead evidence to establish the following:

- Area of expertise of the person skilled in the art in the field of the subject patent, i.e. wind energy;

- Experience in the field;

- Specialization, wherein the person skilled in the art could be a data analyst or statistician or instrumentation engineer or working in the field of control

systems;

- Access to the relevant prior art by person skilled in the art,

50. The learned counsel submitted that the Applicant in the present case has failed to discharge this onus and has premised its case merely on an

averment that ""a person skilled in the art for this matter will be an electronic engineer or academician in with knowledge about electricity generation, transmission and distribution,"" (Paragraph 16 of the present revocation petition). Without prejudice, even the expert evidence of Mr. Dinesh Kumar Jain and Mr. Dilip Trasi filed by the Applicant does not illustrate the above. It is submitted that the averments of the Applicant clearly contravene the principles laid down for determination of the most crucial step in the obviousness analysis.

51. The learned counsel submitted that the expert evidence of Dr. Philips Charles Taylor relied on by the Respondent, clearly states on Page 5,

Paragraph 2 of the affidavit that in order to exploit the technology described in Indian Patent '538, a team of skilled engineers would be required where

the engineers would have skills in the areas of power electronics, wind turbine aerodynamics, mechanical engineering, electrical machines and real

time control software. The expert has illustrated the attributes further in the evidence given. Incidentally, the Respondent has relied on the same

expert in the proceedings pertaining to (2007) EWHC 2636 (Pat) and (2008) EWHC 235 (Pat). The Hon'ble Justice Kitchin has upheld in Paragraph

15 of the decision in (2007) EWHC 2636 (Pat) that ""In these circumstances I think it right to adopt the team proposed by Dr Taylor, It is this team

which would have a real practical interest in the inventions and the skills needed to attempt to put them into effect,

52. Mr. Anand made elaborate submissions on the nature of the person skilled in the art; that he would be conservative, he would not do anything to

enter sacrosanct areas, he would only be in India. He referred to the various subsections in S. 25 which use the words ""in India"" And that all these

qualities must be imputed to this POSITA. He submitted that it is the applicant's duty to adduce expert evidence with regard to the POSITA and

whether the invention was obvious. In the absence of such evidence, the applicant's challenge must fail. He referred to section 64(h) and insisted that

the POSITA must be one in India. We have already deal with this issue in ORA/8/2009/CH and we adopt same. [para 25 to 37]

25. A crucial issue to be decided is Who is the person Skilled in The Art. In fact, Mr. Praveen Anand repeatedly urged us that this issue must be

decided. The guide to this is found in the judgment of the 2012 (52) PTC 1 (DEL) - F. Hoffmann-La Roche Ltd & Anr. vs. Cipla Ltd. Mumbai

Central, Mumbai-It reads, ""Therefore the same cannot be read to mean that there has to exist other qualities in the said person like an imaginary nature of the person or any other kind of person having distinct qualities."" and ""Was it for practical purposes obvious to a skilled worker in the field concerned, in the state of knowledge existing at the date of the patent to be found in the literature then available to him, that he would or should make the invention the subject of the claim concerned?

...

37. In this case the art is wind energy. Since this obviousness test is the most frequently debated issue in patent litigations. It may be better if in the future, the pleadings or evidence tells us who this person is. This person is skilled in the art. This person is presumed to know the state of that art at that time, and to have the knowledge that is publicly available. The Act is quite clear and free of ambiguity. This person is skilled in the art and has more than average knowledge of the state of the art and also has common sense. Indian law expects the non-obviousness to be tested against this person and not the person who is the touchstone in U.S. Law. She is Ms. P. Sita (Person Skilled In The Art) and not Mr. Phosita or Mr. Posita who are both ordinary by definition!

Law of Inventive Step/Obviousness

53. Mr. Praveen Anand submitted that the law on inventive step is given clearly in *Bishwanath Prasad Radhey Shyam v. Hindustan Metal Industries*,:

(1979) 2 SCC 511] at para. 26 where it has been held that

Was it for practical purposes obvious to a skilled worker, in the field concerned, in the state of knowledge existing at the date of the patent to be found in the literature then available to him, that he would or should make the invention the subject of the claim concerned?

54. The learned counsel submitted that the expert evidence filed by the Applicant does not address the issue of common general knowledge at all and

is completely silent regarding the state of knowledge existing and available to a person skilled in the art. Additionally, the evidence filed by the

Applicant does not shed any light on the a man skilled in the art where the problem is that of ""Ping-Pong"". It is problem faced by well known that

without identification of the problem in the art, it is not possible to evaluate a patent for obviousness.

55. The learned counsel submitted that the expert evidence of Dr. Taylor relied on by the Respondent clearly illustrates, on Page 5, Paragraph 5 of the affidavit, the mindset of the skilled person at the date of the patent, which should be considered while evaluating obviousness. The expert has also identified on page 3 of his affidavit the problem in the prior art i.e. 'Hunting'.

56. According to the counsel obviousness means a natural suggestion that makes the invention very plain and straightforward. The Delhi High Court in

F. Hoffmann-La Roche Ltd. & Anr. v. Cipla Ltd. relied upon and affirmed the test of obviousness laid down by the Supreme Court in Bishwanath

Prasad, namely: ""The 'obviousness' has to be strictly and objectively judged. For this determination several forms of the question have been suggested.

The one suggested by Salmond L. J. in Rado v. John Tye & Son Ltd. is apposite. It is whether the alleged discovery lies so much out of the Track of

what was known before as not naturally to suggest itself to a person thinking on the subject, it must not be the obvious or natural suggestion of what

was previously known,

57. The learned counsel argued that another test of whether a document is a publication which would negative existence of novelty or an ""inventive

step"" is suggested, as under; ""Had the document been placed in the hands of a competent craftsman (or engineer as distinguished from a mere

artisan), endowed with the common general knowledge at the 'priority date', who was faced with the problem solved by the patentee but without

knowledge of the patented invention, would he have said, ""this gives me what I want?"" (Encyclopaedia Britannica; ibid). To put it in another form;

Was it for practical purposes obvious to a skilled worker, in the field concerned, in the state of knowledge existing at the date of the patent to be

found in the literature then available to him, that he would or should make the invention the subject of the claim concerned?

58. The learned counsel contended that to establish that the subject patent was obvious as being a natural suggestion to a person skilled in the art from

the prior art would therefore have to be established by the Applicant through evidence. As per the evidence filed by the Applicant, the problem faced

by a person skilled in the art has not been identified, which is a fundamental flaw and therefore, the evidence led by the Applicant fails. Further, the

approach used by the Applicant regarding obviousness analysis is the anticipation

approach. Such an analysis is clearly in hindsight as the experts have attempted to combine prior arts, which are not relevant to the present invention at all.

59. The learned counsel submitted that the present invention has technical advance and economic significance as compared to the exiting knowledge and that makes the invention not obvious to a person skilled in the art. Therefore, the present invention complies with requirements of Section 2(1)(ja).

60. The learned counsel submitted that the invention as disclosed in Indian Patent '538 addresses the issue of 'Ping-Pong' or 'Hunting' in an electrical transmission grid. As per the present invention (Page 11 of the specification), the effect of 'Ping-Pong' is avoided by firstly, measuring the network

voltage at a different point in the grid than the infeed point and/or secondly, that the regulation system can directly or indirectly control the operation of

the tap change transformer (referred to as switching device or stepping transformer in Indian Patent '538). The direct control of the operation of the

tap change transformer implies that the switching operation of the transformer is brought about over a control line. However, indirect control of the

operation of the tap change transformer implies that the regulation system in the wind turbine can specifically trigger a switching operation in the tap

change transformer by suitably feeding reactive power into the grid.

61. The learned counsel submitted that the implementation of the present invention ensures that the tap change transformer and the phase angle

control do not counter each other's actions and hence, the effect of 'Ping Pong' would be avoided. Existing prior art does not address the issue of 'Ping

Pong' or 'Hunting'. Therefore, clearly there is technical advance in the present invention as compared to the existing knowledge.

62. The learned counsel submitted that this is further substantiated by the finding of Hon'ble Justice Kitchin in (2007) EWHC 2636 where in paragraph

276 it has been held that

Attractively though the case for Vestas was put, I do not believe it takes sufficient account of the practical reality described by Dr Taylor. I accept

that the skilled person would appreciate the need for common control but I am not satisfied it would have occurred to him to give that control to the

wind turbine or wind farm operator. That is not something he would have had any reason to think of doing. I believe he would have approached the

issue on the basis that the network operator would retain control of the network assets. That would solve the problem which faced him.

This is further reaffirmed in (2008) EWHC 235 in paragraph 21 where it has been held that

As I made clear in paragraphs 269 and 270 of my judgment, the inventions of proposed claims 1 and 7 require a control system which controls the operation of a switching device in the network. The specification explains that the purpose of the invention is to prevent the condition of ""ping-pong"".

The capability to control the operation of the switching device must be such as to prevent this condition from occurring"".

63. The learned counsel submitted that the present invention enables fast response and efficient regulation of power delivery, which is advantageous to a network operator and a wind turbine operator as it saves cost. Therefore, there is economic significance as well in the present invention.

Lack Inventive step

64. In the present case two prior were art relied on, one is known as Improvement of the Grid Compatibility of Wind Energy Converters (D5) and the other as the Benchmark (D8). Both of the documents are authored by the patentee in relation to promotion of E-40 type wind turbines.

Improvement of the Grid Compatibility of Wind Energy Converters (D5). Presented by

Mr. Wobben at a conference in 1996.

This document disclosed E40 wind turbine and how its characteristics and controllability make it suitable for power system integration. If we look this document it states that

Wind energy converters have increased exponentially over the last few years with regard to numbers as well as power installed. Therefore in the interest of the electric utility and the customer it is absolutely necessary to have a grid-compatible power output.

65. In other words it recognized the future need of significant amount of wind power generation and in such situation wind turbines will have to behave in a similar fashion like traditional large scale power plant. It expressly anticipates wind farms in the future with a capacity of more than 50MW. This document noted, that ""If we succeed in actively operating wind parks on the grid like a power plant, it will be possible to increase today's power of

passively operating machines from about 10% of the supply power up to well over 50% ""and conclude that ""The bigger the size of a wind energy converter the more they will be put under the criteria of conventional power stations.

66. It is pertinent to note that this document does anticipate the growth of wind farms and the imposition upon them of the criteria applying to conventional power stations. One obvious aspect of that was remaining connected under fault conditions and hence having the Low Voltage Ride Through (LVRT) capability. This document also discloses reducing power emission after a specific network voltage has been exceeded. Therefore, it was obvious to gradually reduce that power to zero as U_{max} was approached and to remain connected, at least for a period, if it was exceeded.

Benchmark (D8)

67. This is another Enercon publication to promote the E40. It describes the grid management system incorporated in the turbine and states on page 11, that the system can ""adjust output as a function of the existing grid voltage"" and so help to stabilize grid voltage and frequency. The disclosed system has the ability to adjust the power output, voltage, power factor and frequency. If we see Fig 4 of patent 538 [which discloses essential parts of the regulating device in Fig 2] and Fig given at page 11 of D8 we find they are identical. It also disclosed [at same page] Enercon grid management system and stated that 'regulation of the power factor with pulse inverters permits active voltage regulation to maintain the specified grid voltage'. That is in fact the common general knowledge at the time of invention. In view of this claimed invention in 538 patents contain nothing new other than the concept of remaining connected once the network voltage has strayed outside the predetermined limits. But in any case it makes the inventive concept of power reduction in situations of over voltage obvious. Further it was equally obvious to reduce the power to zero as the network voltage approached U_{max} and to remain connected, at least for a period, if it exceeded U_{max} .

68. In view D5 and D8 where it is disclosed how the E40 was a full converter turbine with the ability to vary the phase angle of the power supplied to the network and so consume inductive or emit capacitive reactive power, the claimed invention in 538 patent is therefore obvious.

69. Conceding the obviousness of the invention except claim 6 and 7 the counsel for the respondent submitted another set of amended claims just four

days before hearing and sought to exercise the discretion of the Board in lieu of revocation of patent. Let us see the claim 6 and 7 as originally granted.

Claim 6:

The method according to one of the preceding claims, wherein the regulation system can directly or indirectly actuate a switching device in the grid.

Claim 7:

The method according to one of the preceding claims, wherein corresponding voltage measurement and regulation can be separately performed for portion of the power grid on the basis of the phase angle ?.

70. The proposed amendments according to the respondent are in line with the amendments allowed in UK patent 1386078 with five differences as stated above. Independent claims 1 and 7 are reproduced below.

Claim 1

Method for operating a wind turbine with an electrical generator, drivable by a rotor, for supplying electrical power to an electric grid, in particular to

loads connected thereto, wherein reactive power is fed into the electric grid and said reactive power is predetermined by a phase angle ? describing

an angle between the current and the voltage of the electrical power supplied, the phase angle thus determining the proportion of reactive power in the

power that is supplied by the wind turbine, characterized in that the phase angle ? is changed in response to the amount of at least one voltage

measured in the grid, that the phase angle remains unchanged as long as the grid voltage is between a predetermined lower reference value (U_{min})

and a predetermined upper reference value (U_{max}), the lower voltage value being less than a reference voltage and the predetermined upper voltage

value being greater than a predetermined reference voltage, and that, when the predetermined upper voltage value (U_{max}) is exceeded, or the

predetermined, lower voltage value (U_{min}) is undercut, the size of the phase angle increases on any further increase or decrease in the grid voltage;

and further characterized in that said method comprises using a regulation device to directly or indirectly control the operation of a switching device in

the grid.

Claim 7

A Wind turbine with an electrical generator, drivable by a rotor, for supplying electrical power to an electric grid, in particular to loads connected

thereto, wherein reactive power can be fed into the electric grid by means of a frequency converter (18) and said reactive power is predefined by a

phase angle φ that determines the proportion of reactive power supplied by the wind turbine, characterized in that the phase angle φ can be changed

in response to the amount of at least one voltage measured in the grid, that the phase angle remains unchanged as long as the grid voltage is between

a predetermined lower voltage value (U_{min}) and a predetermined upper voltage value (U_{max}), the lower voltage value being less than the reference

grid voltage and the predetermined upper voltage value being greater than the reference grid voltage, and that, when the predetermined upper voltage

value (U_{max}) is exceeded, or the lower voltage value (U_{min}) is undercut, the size of the phase angle increases on any further increase or decrease in

the grid voltage; and further characterized in that said method comprises using a regulation device to directly or indirectly control the operation of a

switching device in the grid.

71. Section 2(1)(ja) define inventive step which means 'a feature of an invention that involves technical advance as compared to existing

knowledge.....that make the invention not obvious to a person skill in the art.' Plainly speaking, the invention as defined in section 2(1)(ja) must have a

feature which must be technically advanced as compared to existing Knowledge and that technical advance is such that it make the invention not

obvious to Ms. P. Sita. This requirement seeks whether some technological advance has occurred and if so, whether there has been sufficient

technological advance to warrant the grant of a patent. In other words these two limbs stand as the secondary sifters to sieve out trivial advances

from more substantial advances, and to ensure that only the latter receive patents. In this context if we see the claimed feature of invention in question

we find that it is the need for having a common regulation system to avoid the risk of ping pong effect. This common control is required to operate a

switching device (tap change transformer) in the network. This tap change transformer was already part of the existing associated control system but

at different location means having indirect control. Since the revised claim 1(1+6) is a method claim with the method step involving a feature that the control system can directly or indirectly control the operation of a switching device in the net work, providing the common control to the wind turbine operator would not be a technical advancement over the existing knowledge but rather it is merely a shifting of the control from one location to another for the purpose of better control. This could at best be a matter of great convenience. But it did not produce a new or different structure or any better functional features in exiting network. Therefore even after the amendments the claimed invention lack inventive step.

72. Let us see new claim 8 [reworded old claim 7]. We find the new claim 8 is not for method but for the wind turbine. The regulating system as claimed in originally granted claim 7 was not part of the original claim 8 and dependent claim 9 [for turbine]. It means that the regulating system is not part of wind turbine. If we see regulating system marked as 10 in fig 1 we find it is not the part of the wind turbine. Therefore, the amended claim 8 is beyond the scope of the claims as originally filled thus not admissible under section 59.

73. This case and several others form a batch of Revocation Petitions filed by the same applicant against the same respondent. In all the matters, the question whether the applicant has locus standi and is a person aggrieved and whether as the respondents licensee would he not be estopped from the challenging the patent were raised. In addition, in all the matters amendment were filed to the claims belated and this was challenged by the applicant.

In ORA/6/2009 which was the first application of this batch in which orders were pronounced we have dealt in detail regarding these issues and the same would apply to this case also. Therefore we hold for the reasons stated in ORA/6/2009 that the applicant has the locus standi to file the revocation application and the applicant cannot be estopped based on the Doctrine of a Licensee Estoppel from challenging the patent. As regards amendment, we had held that the principles on which the discretion for allowing amendments are ""full and fair disclosure of all relevant matters, compliance with the statute, public interest requirement of seeking amendment promptly and above all the conduct."" In ORA/6/2009, we found that the respondent failed on almost all counts.

74. In ORA/6/2009 we dismissed the amendment application but since we were of the opinion that there was an inventive step we directed the respondent to file amendment claim conforming to our finding.

75. In Miscellaneous Petition No. 77/2011, the patentee sought amendment in October 2011 without prejudice to his right to sustain his granted claims, but they had already filed in the EP Opposition proceedings in Jan 2010 their auxiliary petition. Yet they kept their unamended claims until the hearing.

We bear in mind this conduct of respondent also. Here, we find the invention is obvious. The amendment sought for cannot be granted for the same

reasons as we held in ORA/6/2009. Further all the features of the proposed claim 1 are obvious as seen above. In the present application in view of

the reasoning above, the amended claims cannot be granted both on merits and on account of delay. In the result, the patent No. IN2015538 is

revoked. Miscellaneous Petition No. 18/2010 for stay is dismissed. Miscellaneous Petition No. 43/2010 for urgent hearing and stay is dismissed.

Miscellaneous Petition No. 78/2010 for dismissal of the revocation application is dismissed. Miscellaneous Petition No. 77/2011 for amendment of

granted claims is dismissed. Miscellaneous Petition No. 60/2013 for second amendment of claims dismissed. The ORA/41/2009/PT/CH is allowed. No

costs.