EirGrid Group

Addendum to Policy for Implementing Scheduling and Dispatch Decisions SEM – 11 – 062

List of Wind Units and Associated Hierarchy Levels

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1 INTRODUCTION

The SEM-11-062 paper identified a three-level hierarchy classification for windfarms. This document outlines the TSOs application of this three-level hierarchy and provides a list of all wind units on the system and their associated hierarchy level.

2 SUMMARY OF DECISION FROM A DISPATCH PERSPECTIVE

The order in which these different Priority Dispatch generation units should be dispatched down is summarised in Section 4.4 of the paper:

1. re dispatch price making generation and TSO counter trading on the interconnector after Gate Closure;
2. re dispatch price taking generation:
    a. Peat
    b. Hybrid Plant
    c. High Efficiency CHP/Biomass/Hydro
    d. Windfarms, and within windfarms
        i. windfarms which should be controllable but do not comply with this requirement/are not derogated from same;
        ii. windfarms which are controllable;
        iii. windfarms which are not required to be controllable/are derogated from this requirement/those in commissioning phase.
    e. Interconnector re-dispatch;
    f. Generation the dispatch down of which results in a safety issue to people arising from the operation of hydro generation stations in flooding situations

For wind units the definition of controllable is important when classifying a unit into any of the three levels outlined in 2 (d) above. A wind unit is considered to be controllable if it has passed controllability testing. This means that the unit has successfully completed a dispatch test with the TSO to test that the active power output can be dispatched using SCADA from the TSO control centre and that availability signals provided to the control centre are of an acceptable standard. Dispatch testing is coordinated with the wind farm owner and the availability signal is monitored for a 14 day period before being passed. Once a unit passes both the dispatch test and the availability signal test the unit is deemed controllable.

For wind units the three level classifications in 2 (d) is explained as follows:

i. Wind generation units which should be controllable but do not comply with this requirement/are not derogated from same

Units in this level include all transmission and distribution connected windfarms with a registered capacity >5MW, that have no working active power control capability and/or availability signals and do not have a derogation to be non-controllable. In some cases the controllability of these units will have already been successfully tested but since then the controls or availability signals have ceased to work properly. Where this happens a unit will be given an opportunity to swiftly resolve the issues before being moved into level (i). Units can also be classified as Level (i) if reasonable progress is not made during commissioning of the wind unit to get the active power control and availability signals working and successfully tested. NB Where active power controls are not working the TSO will open the High Voltage circuit breaker in order to reduce the output of the wind unit. Where availability signals are not operational the TSO will set the outturn availability of the unit to 0 until such time as the availability signals are corrected.

ii. Windfarms which are controllable

These units have successfully completed controllability testing with the TSO to test that the active power output can be dispatched using SCADA from the TSO control centres and the availability signals are of an acceptable standard.

iii. Windfarms which are not required to be controllable/are derogated from this requirement/those in commissioning phase

Units in this Level are not controllable for one of three reasons (presented in the order the TSOs would take off these units):

- Existing Wind Farms. For legacy reasons a number of wind farms are exporting power onto the power systems but have not formally completed controllability testing. A program of work is due to be completed by the end of 2012 so that all existing non-exempt units will have completed controllability testing. As each unit is tested it will be moved into level (ii) (or level (i) if testing is not successful and work to resolve issues is not addressed urgently). After 2012 any unit which is not formally in a commissioning phase and is not formally derogated from the obligation to be controllable will fall into Level (i).
- New Wind Farms: The wind farm is being commissioned. If commissioning is taking an unreasonable period of time and issues with controllability are not being addressed the unit may be moved into level (i) (following discussions with the wind farm operator).

Note that normally in the commissioning phase turbines are commissioned one at a time and when there are 10MW or more of turbines commissioned a dispatch test is performed on these units and control of them made available to the control centre. If the wind farm is very large and commissioning of the entire wind farm is expected to take a long period of time (e.g. more than 2 months) then the block of turbine controls that have passed their dispatch test may be moved into Level (ii) above (following discussions with the wind farm operator).

- Units that are not required to be controllable because they are less than 5MW or because they have an explicit derogation to be non-controllable.

3 PROCESS FOR MOVING TO LEVEL ONE

Moving a wind farm to Level (i) from Level (ii):

Wind farms that are in Level (ii) and whose active power control does not respond to commands will be given an opportunity to swiftly resolve the problem. If the problem is not resolved quickly (e.g. within 2 days) the unit will be moved to Level (i) until the issue is resolved and the unit successfully retested. If the quality of the availability signal goes outside of standard the unit will be moved to Level (i) and the outturn availability will be set to 0MW until the issue is resolved and successfully retested.

Moving a wind farm to Level (i) from Level (iii):

If commissioning is taking an unreasonable period of time and issues with controllability are not being addressed the unit may be moved into level (i) (following discussions with the wind farm operator).

4 LIST OF WIND UNITS AND ASSOCIATED HIERARCHY LEVEL

A list of all wind units greater than 5MW on the EirGrid and SONI system is presented below. Each unit is categorised as level (i), (ii) or (iii) based on the explanation given in section 3 above. Note that when a unit is moved from one level to the next they will be informed of the move by the TSO. This list will be updated periodically.

Wind Farms Connected in Ireland			
Wind Farm Name	**Associated 110kV Station**	**Installed Capacity MW**	**Hierarchy**
Ballywater	Crane	42	(ii)
Bindoo	Ratrussan	48	(ii)
Booltiagh	Booltiagh	19.5	(ii)
Clahane	Clahane	40	(ii)
Derrybrien	Agannygal	59.5	(ii)
Glanlee (Midas Gen unit)	Galnlee	32.45	(ii)
Gortahile	Carlow	20	(ii)
Lisheen	Lisheen	36	(ii)
Richfield	Wexford	27	(ii)
Sorne Hill 1 & 2	Sorne Hill	38.9	(ii)
Beam Hill	Trillick	14	(ii)
Coomagearlahy 1 (Kilgarvan)	Coomagearlahy	45	(ii)
Coomagearlahy 2 (Sillahertane)	Coomagearlahy	8.5	(ii)
Meentycat	Drumkeen	86.4	(ii)
Ballybane 1 & 2	Ballylickey	29.9	(ii)
Muingnaminanne	Tralee	14.8	(ii)
Coomagearlahy 3 (Inchincoosh)	Coomagearlahy	32.5	(ii)
Flughland	Sorne Hill	9.2	(ii)
Knockawarriga	Trien	22.5	(ii)
Total Hierarchy (ii)		**626.15MW**	
Boggeragh	Boggeragh	57	iii) Controllability Works Outstanding
Mountain Lodge	Ratrussan	31.5	iii) Controllability Works Outstanding
Ballincollig Hill	Tralee	13.3	(iii) Controllability Works Outstanding
Rathcahill	Rathkeale	12.5	(iii) Commissioning
Ballymartin	Waterford	6	(iii) Commissioning
Castledockrell	Castledockrell	52.9	(iii) Commissioning
Carraigcannon	Boggeragh	20	(iii) Commissioning
Dromdeeveen	Glenlara	27	(iii) Commissioning
Glenough	Cauteen	32.5	(iii) Commissioning
Grouse Lodge	Rathkeale	15	(iii) Commissioning
Tullynamoyle	Corderry	9	(iii) Commissioning
Bawnmore	Macroom	25.3	(iii) Commissioning
Corkermore	Binbane	15	(iii) Commissioning
Black Banks 2	Corderry	6.8	(iii) Controllability Works Outstanding
Drumlough Hill 2	Trillick	10.2	(iii) Controllability Works Outstanding
Garvagh 1 (Glebe)	Garvagh	32	(iii) Controllability Works Outstanding
Garvagh 2 (Tullynahaw)	Garvagh	28	(iii) Controllability Works Outstanding
Kingsmountain 2 (Dunneille)	Cunghill	11.05	(iii) Controllability Works Outstanding
Lackan	Moy	6.9	(iii) Controllability Works Outstanding
Loughderryduff	Binbane	7.65	(iii) Controllability Works Outstanding

Wind Farms Connected in Ireland			
Wind Farm Name	**Associated 110kV Station**	**Installed Capacity MW**	**Hierarchy**
Meenachullalan	Binbane	12	(iii) Controllability Works Outstanding
Raheen Bar 2 (Derrynadivva)	Castlebar	8	(iii) Controllability Works Outstanding
Taurbeg	Glenlara	25.3	(iii) Controllability Works Outstanding
Cronelea 1	Carlow	6	(iii) Controllability Works Outstanding
Dromada	Dromada	28.5	(iii) Controllability Works Outstanding
Kealkil	Ballylickey	8.5	(iii) Controllability Works Outstanding
Knockastanna	Ardnacrusha	6	(iii) Controllability Works Outstanding
Mullananalt	Meath Hill	7.5	(iii) Controllability Works Outstanding
Tournafulla 1	Trien	7.5	(iii) Controllability Works Outstanding
Tournafulla 2	Trien	19.5	(iii) Controllability Works Outstanding
Coomacheo	Garrow	59.8	(iii) Controllability Works Outstanding
Coomatallin	Dunmanway	6	(iii) Controllability Works Outstanding
Gneeves	Knockeragh	9.35	(iii) Controllability Works Outstanding
Mount Eagle	Tralee	5.1	(iii) Controllability Works Outstanding
Altagowlan	Corderry	7.65	(iii) Exempt Pre Gate
Golagh	Cathleens Falls	15	(iii) Exempt Pre Gate
Kingsmountain 1	Cunghill	25	(iii) Exempt Pre Gate
Total Hierarchy (ii)		**676.3MW**	
NB This does not include all Pre Grid Code WFPS or Units <5MW			

Wind Farms Connected in Northern Ireland			
Wind Farm Name	**Associated 110kV Station**	**Installed Capacity MW**	**Hierarchy**
Garves	Coleraine	15.00	(ii)
Slieve Rushen 2	Aghyoule	54.00	(ii)
Altahullion 2	Limavady	11.70	(ii)
Gruig	Coleraine	25.00	(ii)
Crockagarran	Dungannon	15.00	(ii)
Slieve Divena	Omagh	30.00	(ii)
Hunters Hill	Omagh	20.00	(ii)
Tappaghan	Omagh	28.50	(ii)
Screggagh	Omagh	20.00	(ii)
Lough Hill	Strabane	7.80	(ii)
Curryfree	Lisamore	15.00	(ii)
Total Hierarchy (ii)		**242.00MW**	
Wolf Bog	Larne	10.00	(iii) Controllability Works

Wind Farms Connected in Northern Ireland			
Wind Farm Name	**Associated 110kV Station**	**Installed Capacity MW**	**Hierarchy**
			Outstanding
Callagheen	Enniskillen	16.90	(iii) Controllability Works Outstanding
Bin Mountain	Strabane	9.00	(iii) Controllability Works Outstanding
Bessy Bell 2	Omagh	9.00	(iii) Controllability Works Outstanding
Total Hierarchy (ii)		**44.90MW**	

Any queries about this list should be directed to info@eirgrid.com or enquiries@soni.ltd.uk