Controllability Status Update September 2017



1. INTRODUCTION

The SEM-11-062 decision paper¹ identified a three-level hierarchy classification for Wind Farm Power Stations (WFPS) in Ireland and Northern Ireland; level (i), (ii) or (iii).

On 24th of March 2017, the SEM Committee confirmed that on an interim basis solar and tidal generation is entered onto the priority hierarchy in the same position as wind generation. This is without prejudice to the outcome of any future consultation arising from a wider review of the original decision.

Power Park Modules (PPMs) is a new generic term used in this document to represent specific technology types of Wind Farms, Solar and Tidal units. During this interim time period, all process notes referencing WFPS are applied to PPMs.

This document outlines the list of all Controllable PPMs, 5MW or more on the EirGrid and SONI systems. Each unit is categorised as level (i), (ii) or (iii). The technology types are listed and identified as appropriate within the tables. This list will continue to be updated on a monthly basis.

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https://www.semcommittee.com/sites/semcommittee.com/files/media-files/SEM-11-062%20Principles%20of%20Dispatch%20and%20the%20Design%20of%20the%20Market%20Schedule%20in%20the%20Trading%20and%20Settlement%20Code%20%20SEM%20Committee%20Decision%20Paper%20.pdf

1.1. Ireland

| PPMs connected in Ireland (MW) | October 2016 | November 2016 | December 2016 | January 2017 | February 2017 | March 2017 |
|---|-----------------|------------------|------------------|-----------------|------------------|---------------|
| (i) | 59.5 | 59.5 | 17.1 | 17.1 | 0 | 0 |
| (ii) | 2047.5 | 2047.5 | 2107 | 2107 | 2196.3 | 2303.97 |
| (iii) | 214.9 | 214.9 | 286.8 | 286.8 | 214.6 | 129.2 |
| Total | 2321.9 | 2321.9 | 2410.9 | 2410.9 | 2410.9 | 2433.17 |

| PPMs connected in Ireland (MW) | April 2017 | May 2017 | June 2017 | July 2017 | August 2017 | September 2017 |
|---|---------------|-------------|--------------|--------------|----------------|-------------------|
| (i) | 0 | 10 | 10 | 10 | 10 | 24.1 |
| (ii) | 2333.57 | 2389.97 | 2389.97 | 2425.57 | 2550.82 | 2550.82 |
| (iii) | 205.6 | 172.65 | 178.65 | 166.75 | 43.5 | 97.75 |
| Total | 2539.17 | 2572.62 | 2578.62 | 2602.32 | 2604.32 | 2672.67 |

- Cappawhite A and An Cnoc were included as Category 3 units.
- Tullabrack was included as a Category 1 unit.

1.2. Northern Ireland

| PPMs connected in Northern Ireland (MW) | October 2016 | November 2016 | December 2016 | January 2017 | February 2017 | March 2017 |
|--|-----------------|------------------|------------------|-----------------|------------------|---------------|
| (i) | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 |
| (ii) | 559.6 | 559.6 | 559.6 | 559.6 | 559.6 | 624.1 |
| (iii) | 49.5 | 64.5 | 137.15 | 137.15 | 204.07 | 226.55 |
| Total | 636 | 651 | 723.65 | 723.65 | 790.57 | 877.55 |

| PPMs connected in Northern Ireland (MW) | April 2017 | May 2017 | June 2017 | July 2017 | August 2017 | September 2017 |
|--|---------------|-------------|--------------|--------------|----------------|-------------------|
| (i) | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 | 26.9 |
| (ii) | 624.1 | 679.6 | 624.1 | 624.1 | 624.1 | 624.1 |
| (iii) | 251.15 | 195.65 | 263.65 | 263.65 | 263.65 | 311.15 |
| Total | 902.15 | 902.15 | 914.65 | 914.65 | 914.65 | 962.15 |

Brockaghboy was included as a Category (iii) unit.

1.3. Process Notes

- 1. Categorisation Policy Document 5th March 2012.²³
- 2. Performance monitoring of controllability requirements 1st February 2013.4
- 3. PPMs are obliged to achieve Compliance Certificate within 12 months of energisation. (Operational Certificate, Operational Certificate Justification or Final Compliance Certificate). The Notification list process applied to PPM's without Certificate is published⁵. In line with the CER decision⁶, an additional timeline (one month per 10MW or part of) for PPM's with a Registered Capacity of >50MW is applied.
- 4. Notification list for testing is published7.
- 5. Category (i) PPM may involve the use of circuit breaker for dispatch purposes. These PPM's shall consider the appropriate procedures to bring the PPM back online (either remotely or by personnel on site) when the curtailment or constraint has been removed by the TSO.

² http://www.eirgridgroup.com/site-files/library/EirGrid/Wind%20Farm%20Controllability%20Categorisation%20Policy.pdf

 $[\]frac{http://www.soni.ltd.uk/media/documents/Operations/Renewables/Wind\%20Farm\%20Controllability\%20Categorisation\%20Policy.pdf}{df}$

 $^{{\}color{blue}^{4}} \underline{\text{http://www.eirgridgroup.com/site-files/library/EirGrid/Windfarm-Performance-monitoring-process-October-2015.pdf}$

⁵ http://www.eirgridgroup.com/site-files/library/EirGrid/2017-03-22-Notification-List-for-Testing Final.pdf

⁶ http://www.cer.ie/docs/001088/CER16165%20CER%20Decision%20Paper%20MEC%20Security.pdf

 $^{^{7}\ \}underline{\text{http://www.eirgridgroup.com/site-files/library/EirGrid/2017-03-22-Notification-List-for-Testing\ Final.pdf}$

2. PPM Category

| 2. PPIVI Category | | Ireland | | |
|-----------------------------------|-----------------------------|---------------------------------------|----------|------|
| PPM Name | Associated 110kV Station | Installed Capacity MW ⁸ | Category | Туре |
| Corkermore | Binbane | 10 | (i) | WFPS |
| Tullabrack | Tullabrack | 14.1 | (i) | WFPS |
| Total Hierarchy (i) | | 24.1 | | |
| Altagowlan | Corderry | 7.65 | (ii) | WFPS |
| Athea | Athea | 34.35 | (ii) | WFPS |
| Ballincollig Hill | Tralee | 13.3 | (ii) | WFPS |
| Ballybane 1 & 2 | Ballylickey | 29.9 | (ii) | WFPS |
| Ballybane Phase 2a | Ballylickey | 13.8 | (ii) | WFPS |
| Ballybane 3 | Ballylickey | 4.6 | (ii) | WFPS |
| Ballycadden Phase 1 | Crory | 15 | (ii) | WFPS |
| Ballycadden Phase 2 | Crory | 11.5 | (ii) | WFPS |
| Ballymartin Phase 1 | Waterford | 7 | (ii) | WFPS |
| Ballymartin Phase 2 | Waterford | 8 | (ii) | WFPS |
| Ballywater | Crane | 42 | (ii) | WFPS |
| Barranafaddock | Barrymore | 34.2 | (ii) | WFPS |
| Bawnmore | Macroom | 25.3 | (ii) | WFPS |
| Beam Hill | Trillick | 14 | (ii) | WFPS |
| Bindoo | Ratrussan | 48 | (ii) | WFPS |
| Black Banks 2 | Corderry | 6.8 | (ii) | WFPS |
| Boggeragh 1 | Boggeragh | 57 | (ii) | WFPS |
| Boggeragh 2 | Boggeragh | 65 | (ii) | WFPS |
| Booltiagh Phase 1 | Booltiagh | 19.5 | (ii) | WFPS |
| Booltiagh Phase 2 | Booltiagh | 13.8 | (ii) | WFPS |
| Bruckana | Lisheen | 42 | (ii) | WFPS |
| Caherdowney | Garrow | 9.2 | (ii) | WFPS |
| Carraigcannon | Boggeragh | 23 | (ii) | WFPS |
| Carrickeeny | Sligo | 8 | (ii) | WFPS |
| Carrowleagh | Glenree | 36.8 | (ii) | WFPS |
| Castledockrell | Castledockrell | 41.4 | (ii) | WFPS |
| Clahane | Clahane | 40 | (ii) | WFPS |
| Cloghboola | Cloghboola | 48 | (ii) | WFPS |
| Coomacheo | Garrow | 59.8 | (ii) | WFPS |
| Coomatallin | Dunmanway | 6 | (ii) | WFPS |
| Coomagearlahy 1 (Kilgarvan) | Coomagearlahy | 45 | (ii) | WFPS |
| Coomagearlahy 2 (Sillahertane) | Coomagearlahy | 8.5 | (ii) | WFPS |
| Coomagearlahy 3 (Inchincoosh) | Coomagearlahy | 32.5 | (ii) | WFPS |

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⁸For the purposes of this report, it is assumed that category 3 units are fully installed.

| Cronelea 1 | Carlow | 4.6 | (ii) | WFPS |
|---------------------------|--------------|-------|------|------|
| Cronelea 2 | Carlow | 4.6 | (ii) | WFPS |
| Derrybrien | Agannygal | 59.5 | (ii) | WFPS |
| Dromada | Dromada | 28.5 | (ii) | WFPS |
| Dromdeeveen | Glenlara | 28 | (ii) | WFPS |
| Drumlough Hill 2 | Trillick | 10.2 | (ii) | WFPS |
| Faughary | Sligo | 6 | (ii) | WFPS |
| Flughland | Sorne Hill | 9.2 | (ii) | WFPS |
| Garracummer | Cauteen | 42.5 | (ii) | WFPS |
| Garraneragh | Macroom | 9.2 | (ii) | WFPS |
| Garvagh 1 (Glebe) | Garvagh | 26 | (ii) | WFPS |
| Garvagh 2 (Tullynahaw) | Garvagh | 22 | (ii) | WFPS |
| Gibbet Hill | Crory | 15 | (ii) | WFPS |
| Glanlee (Midas Gen unit) | Galnlee | 32.45 | (ii) | WFPS |
| Glenough | Cauteen | 32.5 | (ii) | WFPS |
| Gortahile | Carlow | 20 | (ii) | WFPS |
| Gneeves | Knockearagh | 9.35 | (ii) | WFPS |
| Grove Hill | Dundalk | 17.1 | (ii) | WFPS |
| Grouse Lodge | Rathkeale | 15.42 | (ii) | WFPS |
| Hollyford | Cauteen | 9.3 | (ii) | WFPS |
| Kealkil | Ballylickey | 8.5 | (ii) | WFPS |
| Killaveenoge | Dunmanway | 25 | (ii) | WFPS |
| Kill Hill | Kill Hill | 36 | (ii) | WFPS |
| Kingsmountain 2 (Dunneil) | Cunghill | 11.05 | (ii) | WFPS |
| Knockacummer | Knockacummer | 100 | (ii) | WFPS |
| Knockaneden | Oughtrah | 9.2 | (ii) | WFPS |
| Knockastanna | Ardnacrusha | 6 | (ii) | WFPS |
| Knockawarriga | Trien | 22.5 | (ii) | WFPS |
| Knocknagoum | Reamore | 44.35 | (ii) | WFPS |
| Knocknalour | Crory | 9.2 | (ii) | WFPS |
| Lacken | Moy | 6.9 | (ii) | WFPS |
| Leitir Guingaid | Salthill | 42.8 | (ii) | WFPS |
| Lisdowney | Portlaoise | 9.2 | (ii) | WFPS |
| Lisheen Phase 1 | Lisheen | 36 | (ii) | WFPS |
| Lisheen Phase 2 | Lisheen | 24 | (ii) | WFPS |
| Loughderryduff | Binbane | 7.65 | (ii) | WFPS |
| Meenachullalan | Binbane | 13.8 | (ii) | WFPS |
| Meentycat | Drumkeen | 88.5 | (ii) | WFPS |
| Monaincha | Ikerrin | 36 | (ii) | WFPS |
| Mountain Lodge | Ratrussan | 31.5 | (ii) | WFPS |
| Mountlucas | Mountlucas | 84 | (ii) | WFPS |
| Muingnaminanne | Reamore | 14.8 | (ii) | WFPS |

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|--------------------------------|---|---------|-------|------|--|--|--|
| Mullananalt | Meath Hill | 7.5 | (ii) | WFPS | | | |
| Mulreavy 1 | Mulreavy | 90 | (ii) | WFPS | | | |
| Mulreavy 2 | Mulreavy | 5 | (ii) | WFPS | | | |
| Raheen Bar 2 (Derrynadivva) | Castlebar | 8 | (ii) | WFPS | | | |
| Raheenleagh | Arklow | 35.2 | (ii) | WFPS | | | |
| Rathcahill | Rathkeale | 12.5 | (ii) | WFPS | | | |
| Richfield | Wexford | 27 | (ii) | WFPS | | | |
| Sliabh Bawn | Sliabh Bawn | 64 | (ii) | WFPS | | | |
| Sorne Hill 1 & 2 | Sorne Hill | 38.9 | (ii) | WFPS | | | |
| Spaddan | Cathaleen's Fall | 17.1 | (ii) | WFPS | | | |
| Taurbeg | Glenlara | 25.3 | (ii) | WFPS | | | |
| Tournafulla 1 | Trien | 7.5 | (ii) | WFPS | | | |
| Tournafulla 2 | Trien | 19.5 | (ii) | WFPS | | | |
| Tullynamoyle | Corderry | 9.2 | (ii) | WFPS | | | |
| Uggool | Uggool | 64 | (ii) | WFPS | | | |
| Woodhouse | Woodhouse | 20 | (ii) | WFPS | | | |
| Glencarbry | Cauteen | 35.6 | (ii) | WFPS | | | |
| Moneypoint | Moneypoint | 17.25 | (ii) | WFPS | | | |
| Seecon | Uggool | 108 | (ii) | WFPS | | | |
| Total Hierarchy (ii) | | 2550.82 | | | | | |
| Killin Hill | Binbane | 6 | (iii) | WFPS | | | |
| Ballybay | Thurles | 13.8 | (iii) | WFPS | | | |
| Foyle | Thurles | 9.6 | (iii) | WFPS | | | |
| Cappawhite A | Cauteen | 56.85 | (iii) | WFPS | | | |
| An Cnoc | Thurles | 11.5 | (iii) | WFPS | | | |
| Total Hierarchy (iii) | | 97.75 | | | | | |
| NB This does not include | NB This does not include Pre Grid Code, exempt PPMs or Units <5MW | | | | | | |
| | | | | | | | |

| Northern Ireland | | | | | | |
|---------------------|-----------------------------|---------------------------------------|---|------|--|--|
| PPM Name | Associated 110kV Station | Installed Capacity MW ⁹ | Category | Туре | | |
| Callagheen | Enniskillen | 16.9 | (i) Compliance certificate not achieved through process | WFPS | | |
| Wolf Bog | Larne | 10 | (i) Compliance certificate not achieved through process | WFPS | | |
| Total Hierarchy (i) | | 26.9 | | | | |
| Owenreagh 2 | Strabane | 5.1 | (ii) | WFPS | | |
| Curryfree | Lisamore | 15 | (ii) | WFPS | | |
| Altahullion 2 | Limavady | 11.7 | (ii) | WFPS | | |
| Bessy Bell 2 | Omagh | 9 | (ii) | WFPS | | |

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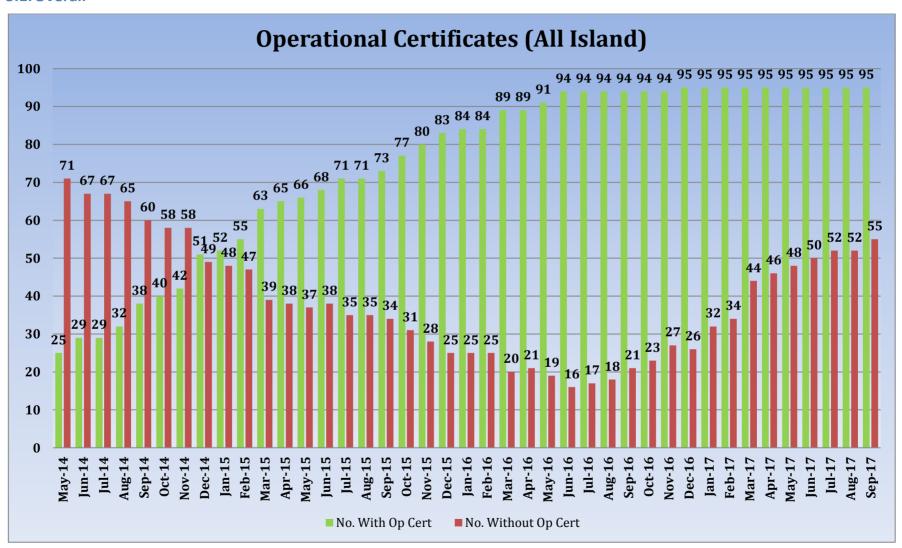
⁹For the purposes of this report, it is assumed that category 3 units are fully installed.

| Bin Mountain | Strabane | 9 | (ii) | WFPS |
|----------------------|---------------|-------|-------|------|
| Church Hill | Magherakeel | 18.4 | (ii) | WFPS |
| Crighshane | Magherakeel | 32.2 | (ii) | WFPS |
| Crockagarran | Dungannon | 17.5 | (ii) | WFPS |
| Garves | Coleraine | 15 | (ii) | WFPS |
| Gruig | Coleraine | 25 | (ii) | WFPS |
| Hunters Hill | Omagh | 20 | (ii) | WFPS |
| Lough Hill | Strabane | 7.8 | (ii) | WFPS |
| Screggagh | Omagh | 20 | (ii) | WFPS |
| Slieve Divena | Omagh | 30 | (ii) | WFPS |
| Slieve Kirk | Killymallaght | 73.6 | (ii) | WFPS |
| Slieve Rushen 2 | Aghyoule | 54 | (ii) | WFPS |
| Tappaghan | Omagh | 28.5 | (ii) | WFPS |
| Carrickatane | Killymallaght | 20.7 | (ii) | WFPS |
| Carn Hill | Carnmoney | 13.8 | (ii) | WFPS |
| Dunmore | Coleraine | 21 | (ii) | WFPS |
| Dunbeg | Coleraine | 42 | (ii) | WFPS |
| Molly Mountain | Aghyoule | 15 | (ii) | WFPS |
| Thornog | Magherakeel | 20 | (ii) | WFPS |
| Monnaboy | Coolkeeragh | 12 | (ii) | WFPS |
| Tievenameenta | Magherakeel | 34.5 | (ii) | WFPS |
| Oramore | Enniskillen | 15 | (ii) | WFPS |
| Gortfinbar | Tremoge | 15 | (ii) | WFPS |
| Seegronan | Magherakeel | 14.1 | (ii) | WFPS |
| Cloonty | Loguestown | 9.2 | (ii) | WFPS |
| Total Hierarchy (ii) | | 624.1 | , , | |
| Eglish | Killymallaght | 15 | (iii) | WFPS |
| Glenbuck | Rasharkin | 9.2 | (iii) | WFPS |
| Eshmore | Tremoge | 7.05 | (iii) | WFPS |
| Slieve Divena 2 | Gort | 20 | (iii) | WFPS |
| Crockbaravally | Gort | 7.5 | (iii) | WFPS |
| Crockandun | Tremoge | 15 | (iii) | WFPS |
| Shantavny Scotch | Gort | 16.1 | (iii) | WFPS |
| Inishative | Tremoge | 13.8 | (iii) | WFPS |
| Altaveedan | Rasharkin | 18 | (iii) | WFPS |
| Altamuskin | Gort | 14.1 | (iii) | WFPS |
| Cregganconroe | Tremoge | 13.8 | (iii) | WFPS |
| Long Mountain | Rasharkin | 27.6 | (iii) | WFPS |
| Crockdun | Tremoge | 12.5 | (iii) | WFPS |
| Bann Road PV | Rasharkin | 29.81 | (iii) | PV |
| Lisburn Solar Park | Lisburn | 16.92 | (iii) | PV |
| Lough Road | Lisburn | 21.00 | (iii) | PV |
| Millar Farm | Antrim Main | 6.27 | (iii) | PV |

| Brockaghboy | Rasharkin | 47.5 | (iii) | WFPS | | |
|---|-----------|--------|-------|------|--|--|
| Total Hierarchy (iii) | | 311.15 | | | | |
| NB This does not include Pre Grid Code, exempt PPMs or Units <5MW | | | | | | |

3. Compliance Certificate status

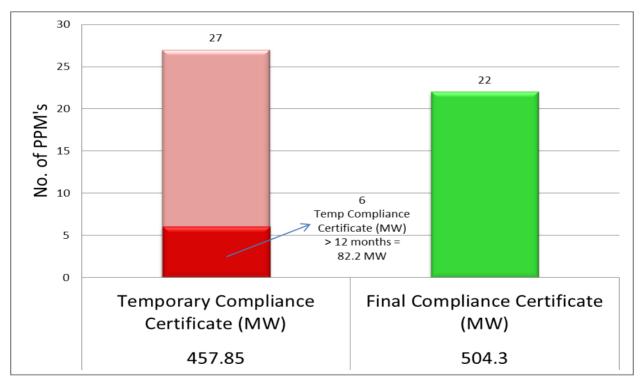
3.1. Overall



3.2. Ireland



3.3. Northern Ireland



4. CONTACTS

If you have any specific queries please contact info@eirgrid.com or neartime@soni.ltd.uk.