4.2 BMRA-I005: (output) Publish System Related Data

Interface ID: BMRA-I005	**User:** BMR Service User	**Title:** Publish System Related Data	**BSC reference:** BMRA SD 7.2, P8, P78, P172, P219, P220, P217, P243, P244, CP1333
Mechanism: BMRA Publishing Interface	**Frequency:** Continuous (as made available from the SO)	**Volumes:** Various	

Interface Requirement:

The BMRA Service shall publish System data continuously, as it is received from the SO.

The System Related data consists of the following:

Indicated Generation
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- National/Boundary Identifier
- Sum of PN Generation (MW)

Indicated Demand
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- National/Boundary Identifier
- Sum of PN Demand (MW)

National Demand Forecast[1]
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- National/Boundary Identifier
- Demand (MW)

Transmission System Demand Forecast[2]
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- National/Boundary Identifier
- Demand (MW)

Initial National Demand Out-Turn
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- Demand (MW)

Initial Transmission System Demand Out-Turn
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- Demand (MW)

National Demand Forecast Day, 2-14 Day
- Publishing Period Commencing Time
- Day of Forecast
- Demand (MW)

Transmission System Demand Forecast Day, 2-14 Day
- Publishing Period Commencing Time
- Day of Forecast
- Demand (MW)

National Demand Forecast Week, 2-52 Week
- Publishing Period Commencing Time
- Calendar Week Number
- Demand (MW)

Transmission System Demand Forecast Week, 2-52 Week

[1] Note that the DF flow ceases publication in Q1/2009

[2] Note that the DF flow ceases publication in Q1/2009

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Publishing Period Commencing Time
Calendar Week Number
Demand (MW)

National Surplus Forecast, 2-14 Day
Publishing Period Commencing Time
Day of Forecast
Surplus (MW)

National Surplus Forecast, 2-52 Week
Publishing Period Commencing Time
Calendar Week Number
Surplus (MW)

Indicated Margin
Publishing Period Commencing Time
Start Time of ½ Hour Period
National/Boundary Identifier
Margin (MW)

Indicated Imbalance
Publishing Period Commencing Time
Start Time of ½ Hour Period
National/Boundary Identifier
Imbalance Value (MW)

National Output Usable, 2-14 Day
Publication Time
System Zone
Settlement Date
Output Usable (MW)

Zonal Output Usable, 2-14 Day
Publication Time
System Zone
Settlement Date
Output Usable (MW)

National Output Usable by Fuel Type, 2-14 Day
Fuel Type
Publication Time
System Zone
Settlement Date
Output Usable (MW)

National Output Usable by Fuel Type and BM Unit, 2-14 Day
BM Unit
Fuel Type
Publication Time
System Zone
Settlement Date
Output Usable (MW)

National Output Usable, 2-49 Day
Publication Time
System Zone
Settlement Date
Output Usable (MW)

Zonal Output Usable, 2-49 Day
Publication Time
System Zone
Settlement Date
Output Usable (MW)

National Output Usable, 2-52 Week
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

Zonal Output Usable, 2-52 Week
Publication Time
System Zone

Interface ID: BMRA-I005	**User:** BMR Service User	**Title:** Publish System Related Data	**BSC reference:** BMRA SD 7.2, P8, P78, P172, P219, P220, P217, P243, P244, CP1333

Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable by Fuel Type, 2-52 Week
Fuel Type
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable by Fuel Type and BM Unit, 2-52 Week
BM Unit
Fuel Type
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable, 1 year ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable, 2 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable, 3 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable, 4 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

National Output Usable, 5 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

Zonal Output Usable, 1 year ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

Zonal Output Usable, 2 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

Zonal Output Usable, 3 years ahead
Publication Time
System Zone

Interface ID: BMRA-I005	**User:** BMR Service User	**Title:** Publish System Related Data	**BSC reference:** BMRA SD 7.2, P8, P78, P172, P219, P220, P217, P243, P244, CP1333

Calendar Week Number
Calendar Year
Output Usable (MW)

Zonal Output Usable, 4 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

Zonal Output Usable, 5 years ahead
Publication Time
System Zone
Calendar Week Number
Calendar Year
Output Usable (MW)

Generating Plant Demand Margin, 2-14 Days
Publication Time
Settlement Date
Generating Plant Demand Margin (MW)

Generating Plant Demand Margin, 2-52 Weeks
Publication Time
Calendar Week Number
Generating Plant Demand Margin (MW)

System Zone Map

NGC-BSC BM Unit Mapping

System Warnings

SO-SO Prices

Balancing Services Adjustment Data:
Settlement Date
Settlement Period
Net Energy Buy Price Cost Adjustment (EBCA) (£)
Net Energy Buy Price Volume Adjustment (EBVA) (MWh)
Net System Buy Price Volume Adjustment (SBVA) (MWh)
Buy Price Price Adjustment (BPA) (£/MWh)
Net Energy Sell Price Cost Adjustment (ESCA) (£)
Net Energy Sell Price Volume Adjustment (ESVA) (MWh)
Net System Sell Price Volume Adjustment (SSVA) (MWh)
Sell Price Price Adjustment (SPA) (£/MWh)

Balancing Services Adjustment Action Data (for Settlement Dates after, and including the P217 effective date):
Settlement Date
Settlement Period
Balancing Services Adjustment Action ID (unique for Settlement Period)
Balancing Services Adjustment Action Cost (£)
Balancing Services Adjustment Action Volume (MWh)
Balancing Services Adjustment Action SO-Flag (T/F)

Market Index Data:
Market Index Data Provider Identifier
Settlement Date
Settlement Period (1-50)
Market Index Price
Market Index Volume

Missing Market Index Data Messages

Temperature Data
Publishing Period Commencing Time
Settlement Date
Outturn Temperature (degrees Celsius)
Normal Reference Temperature (degrees Celsius)
High Reference Temperature (degrees Celsius)
Low Reference Temperature (degrees Celsius)

Wind Generation Forecast
Publishing Period Commencing Time
Start Time of ½ Hour Period

Interface ID: BMRA-I005	**User:** BMR Service User	**Title:** Publish System Related Data	**BSC reference:** BMRA SD 7.2, P8, P78, P172, P219, P220, P217, P243, P244, CP1333

Generation Forecast (MW)
Total Registered Capacity (MW)

Instantaneous Generation By Fuel Type
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- Spot Time
- Fuel Type – ID representing one of:
  - CCGT
  - Oil Plant
  - OCGT
  - Coal
  - Nuclear
  - Power Park Module
  - Pumped Storage Plant
  - Non Pumped Storage Hydro Plant
  - External Interconnector Flows from France to England
  - External Interconnector Flows from Northern Ireland to Scotland
  - External Interconnector Flows from the Netherlands to England
  - External Interconnector Flows from Ireland to Wales
  - Other
- Generation (MW)

Half Hourly Generation By Fuel Type
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- Fuel Type – ID representing one of:
  - CCGT
  - Oil Plant
  - OCGT
  - Coal
  - Nuclear
  - Power Park Module
  - Pumped Storage Plant
  - Non Pumped Storage Hydro Plant
  - External Interconnector Flows from France to England
  - External Interconnector Flows from Northern Ireland to Scotland
  - External Interconnector Flows from the Netherlands to England
  - External Interconnector Flows from Ireland to Wales
  - Other
- Generation (MW)

Daily Energy Volume Data
- Publishing Period Commencing Time
- Settlement Date
- Outturn Volume (MWh)
- Normal Volume (MWh)
- High Volume (MWh)
- Low Volume (MWh)

Realtime Transmission System Frequency Data
- Publishing Period Commencing Time
- Spot Time
- Frequency (Hz)

Non-BM STOR Out-Turn
- Publishing Period Commencing Time
- Start Time of ½ Hour Period
- Non-BM STOR Volume (MWh)

The System Warnings functionality will be utilised, within existing constraints, to report the issuing of all Emergency Instructions, and to notify whether or not each instruction should be treated as an Excluded Emergency Acceptance.

Balancing Services Adjustment Data for Settlement Dates after, and including the P217 effective date will always have a value of zero for the following data items:

Interface ID: BMRA-I005	**User:** BMR Service User	**Title:** Publish System Related Data	**BSC reference:** BMRA SD 7.2, P8, P78, P172, P219, P220, P217, P243, P244, CP1333
Net Energy Buy Price Cost Adjustment (EBCA) Net Energy Buy Price Volume Adjustment (EBVA) Net System Buy Price Volume Adjustment (SBVA) Net Energy Sell Price Cost Adjustment (ESCA) Net Energy Sell Price Volume Adjustment (ESVA) Net System Sell Price Volume Adjustment (SSVA)			
Physical Interface Details:			
Within the Balancing Services Adjustment Action Data the SO-Flag will be set to 'T' where the associated Action has been flagged by the SO as potentially impacted by transmission constraints.			

4.7.4.42 Fuel Type

Field Data Type : Fuel Type
Field Type : FT
Field Name : "FT"
Description : The class of generation fuel type.
TIB Data Type : TIBRVMSG_STRING
C/Java Type : Char*/String
Messages containing field : FUELINST, FUELHH, FOU2T14D, FOU2T52W, UOU2T14D, UOU2T52W

Additional Information :

One of:	
CCGT	Combined Cycle Gas Turbine
OIL	Oil Plant
COAL	Coal Plant
NUCLEAR	Nuclear Plant
WIND	Power Park Modules metered by the Transmission Operator
PS	Pumped Storage Plant
NPSHYD	Non Pumped Storage Hydro Plant
OCGT	Open Cycle Gas Turbine Plant
OTHER	Undefined
INTFR	External Interconnector flows with France
INTIRL	External Interconnector flows with Ireland
INTNED	External Interconnector flows with the Netherlands
INTEW	External Interconnector flows with Ireland (East-West)

4.8.21.2 Body Record Instantaneous Generation By Fuel Type Data

Field	Type	Format	Comments
Record Type	string		Fixed String "FUELINST"
Settlement Date	date	yyyymmdd	Group ordered by this field first, incrementing.
Settlement Period	number		Group ordered by this field second, incrementing.
Spot Time	datetime	yyyymmddhh24miss	
CCGT (MW)	number		
OIL (MW)	number		
COAL (MW)	number		
NUCLEAR (MW)	number		
WIND (MW)	number		
PS (MW)	number		
NPSHYD (MW)	number		
OCGT (MW)	number		
OTHER (MW)	number		
INTFR (MW)	number		
INTIRL (MW)	number		
INTNED (MW)	number		
INTEW (MW)	number		

4.8.21.3 Example File

```
HDR, INSTANTANEOUS GENERATION BY FUEL TYPE DATA

FUELINST,20080428,37,20080428170503,18137,1850,0,15315,7308,189,1
5,15,0,55,152,-21,32

FUELINST,20080428,37,20080428171007,18134,1849,0,15312,7307,181,1
6,14,0,52,150,-13,17

FTR,2
```

4.8.22.2 Body Record Half Hourly Outturn Generation By Fuel Type Data

Field	Type	Format	Comments
Record Type	string		Fixed String "FUELHH"
Settlement Date	date	yyyymmdd	Group ordered by this field first, incrementing.
Settlement Period	number		Group ordered by this field second, incrementing.
CCGT (MW)	number		
OIL (MW)	number		
COAL (MW)	number		
NUCLEAR (MW)	number		
WIND (MW)	number		
PS (MW)	number		
NPSHYD (MW)	number		
OCGT (MW)	number		
OTHER (MW)	number		
INTFR (MW)	number		
INTIRL (MW)	number		
INTNED (MW)	number		
INTEW (MW)	number		

4.8.22.3 Example File

```
HDR, HALF HOURLY OUTTURN GENERATION BY FUEL TYPE DATA

FUELHH,20080428,1,18137,1850,0,15315,7308,189,15,15,0,55,152,12,1
6

FUELHH,20080428,2,18134,1849,0,15312,7307,181,16,14,0,52,150,22,1
6

FTR,2
```

4.8.24.2 Body Record Half Hourly Interconnector Outturn Generation

Field	Type	Format	Comments
Record Type	string		Fixed String "INTOUTHH"
Settlement Date	date	yyyymmdd	Group ordered by this field first, incrementing.
Settlement Period	number		Group ordered by this field second, incrementing.
INTFR (MW)	number		
INTIRL (MW)	number		
INTNED (MW)	number		
INTEW (MW)	number		

4.8.24.3 Example File

```
HDR, HALF HOURLY OUTTURN GENERATION BY FUEL TYPE DATA
INTOUTHH,20080428,1,55,152,23,32
INTOUTHH,20080428,2,52,150,22,31
FTR,2
```