

Elexon datasets

In total this dataset is about 500 MB. It is made up of a small excel file of very basic metadata, two small csv files, one mapping one of the primary keys of the main datasets (BMU_ID) to more general data about power stations (BMU_Mapping) and one providing similar but different data about both generation and demand sites.

There are three zipped folders with the main data. They all contain multiple files, each with one month's data in.

BMU contains output data for every medium and large generator back to Apr 2013.

GSP contains demand data for around 350 grid supply points (substations mostly) again back to Apr 2013

SYSTEM contains a range of market parameters such as cash flows and system electricity prices, along with the total demand back to Apr 01.

All three sets of data are broken down by half hour. Note the data is the energy supplied in the half hour (in MWh) and not the power generated or consumed (in MW). A generator outputting an average of 200 MW over a half hour period would export and energy of 100 MWh. This is the feature of the data that is most likely to lead to errors in interpretation.

Note all the data relates to the GB electricity market and not the whole UK. Northern Ireland is not part of the National Grid system and does not appear in any of this data.

Tables (DataFrames)	Columns	Table Prefix
Settlement Report Header	Settlement_Date Settlement_Run_Type SAA_Run_Number SAA_CDCA_Run_Number SVAA_CDCA_Settlement_Date SVAA_CDCA_Run_Number SVAA_SSR_Run_Number BSC_Party_Id	SRH
Settlement Period Information	Settlement_Period System_Buy_Price System_Sell_Price Price_Derivation_Code Total_Demand Total_Generation Total_Period_Applicable_Balancing_Services_Volume Information_Imbalance_Price_1 Information_Imbalance_Price_2 Notional_Reserve_Limit Total_NIV_Tagged_Volume Arbitrage_Flag Continuous_Acceptance_Duration_Limit De_Minimis_Acceptance_Threshold	SPI

	Net_Energy_Buy-Price_Cost_Adjustment Net_Energy_Buy-Price_Volume_Adjustment Net_System_Buy-Price_Volume_Adjustment Buy-Price_Price_Adjust Net_Energy_Sell-Price_Cost_Adjustment Net_Energy_Sell-Price_Volume_Adjustment Net_System_Sell-Price_Volume_Adjustment Sell-Price_Price_Adjust System_Total_Accepted_Bid_Volume System_Total_Accepted_Offer_Volume Total_System_Tagged_Accepted_Bid_Volume Total_System_Tagged_Accepted_Offer_Volume Total_System_Repriced_Accepted_Bid_Volume Total_System_Repriced_Accepted_Offer_Volume Total_System_Originally-priced_Accepted_Bid_Volume Total_System_Originally-priced_Accepted_Offer_Volume Total_System_Adjustment_Sell_Volume Total_System_Adjustment_Buy_Volume Total_System_Tagged_Adjustment_Sell_Volume Total_System_Tagged_Adjustment_Buy_Volume Total_System_Repriced_Adjustment_Sell_Volume Total_System_Repriced_Adjustment_Buy_Volume Total_System_Originally-priced_Adjustment_Sell_Volume Total_System_Originally-priced_Adjustment_Buy_Volume Replacement_Price Replacement_Price_Calculation_Volume Stor_Availability_Window_Flag Loss_Of_Load_Probability De-rated_Margin Value_Of_Lost_Load Reserve_Scarcity_Price GBP-EUR_Exchange_Rate Balancing_Energy_Deviation_Price Total_System_RR_Cashflow RR_Aggregated_Unpriced_System_Buy_Action_Volume RR_Aggregated_Unpriced_System_Sell_Action_Volume Period_RR_Accepted_Offer_Volume Period_RR_Accepted_Bid_Volume	
Market Index Data Period Information	Market_Index_Data_Provider_ID Individual_Liquidity_Threshold Market_Index_Price Market_Index_Volume	MD1

Balancing Services Adjustment Action Data	Balancing_Services_Adjustment_Action_Id Balancing_Services_Adjustment_Action_Cost Balancing_Services_Adjustment_Action_Volume Tagged_Balancing_Services_Adjustment_Action_Volume Repriced_Balancing_Services_Adjustment_Action_Volume Originally-Priced_Balancing_Services_Adjustment_Action_Volume Balancing_Services_Adjustment_Action_SO-Flag Balancing_Services_Adjustment_Action_Stor_Provider_Flag Reserve_Scarcity_Price_Flag	DB1
Trading Unit Period Information	Trading_Unit_Name Total_Trading_Unit_Metered_Volume	TRA
BM Unit Period Information	BM_Unit_Id Trading_Unit_Name Period_FPN BM_Unit_Metered_Volume Transmission_Loss_Multiplier BM_Unit_Applicable_Balancing_Services_Volume	BPI
Maximum Export Limit Information	Time_From Level_From Time_To Level_To	MEL
Maximum Import Limit Information	Time_From Level_From Time_To Level_To	MIL
BM Unit MVR Information	BSC_Party_Id Production/Consumption_Flag Credited_Energy_Volume Fixed_Metered_Volume_Reallocation Percentage_Metered_Volume_Reallocation	MVR
BM Unit Bid-Offer Pair Acceptance Volume Data	Bid-Offer_Pair_Number Bid-Offer_Pair_Acceptance_Bid_Volume Bid-Offer_Pair_Acceptance_Offer_Volume	BO7

BMU Period Bid-Offer Acceptance Spot Point	Acceptance_From_Time Bid_Offer_Acceptance_Volume_Value_From Acceptance_To_Time Bid_Offer_Acceptance_Volume_Value_To	BO6
BMU Period Bid-Offer Acceptance	B-O_Acceptance_Number CADL_Flag Acceptance_SO-Flag Acceptance_Stor_Provider_Flag Reserve_Scarcity_Price_Flag	BO3
BMU Period Bid-Offer Value Pair	Time_from Bid_Offer_Volume_Value_From Time_To Bid_Offer_Volume_Value_To	BO2
BMU Period Bid-Offer Data	Bid-Offer_Pair_Number Bid_Price Offer_Price Period_BM_Unit_Total_Accepted_Bid_Volume Period_BM_Unit_Total_Accepted_Offer_Volume Period_BM_Unit_Total_Priced_Accepted_Bid_volume Period_BM_Unit_Total_Priced_Accepted_Offer_volume Period_BM_Unit_Tagged_Bid_Volume Period_BM_Unit_Tagged_Offer_Volume Period_BM_Unit_Repriced_Bid_Volume Period_BM_Unit_Repriced_Offer_Volume Period_BM_Unit_Originally-Priced_Bid_Volume Period_BM_Unit_Originally-Priced_Offer_Volume Period_BM_Unit_Bid_Cashflow Period_BM_Unit_Offer_Cashflow	BO4
FPN Value Pair	Time_from FPN_Value_From Time_To FPN_Value_To	FP2

BM Unit Period Data	BM_Unit_Id Information_Imbalance_Cashflow BM_Unit_Period_Non-Delivery_Charge Period_FPN Period_BM_Unit_Balancing_Services_Volume Period_Information_Imbalance_Volume Period_Expected_Metered_Volume BM_Unit_Metered_Volume Period_BM_Unit_Non-Delivered_Bid_Volume Period_BM_Unit_Non-Delivered_Offer_Volume Transmission_Loss_Factor Transmission_Loss_Multiplier Trading_Unit_Name Total_Trading_Unit_Metered_Volume BM_Unit_Applicable_Balancing_Services_Volume	BP7
Account Period BMU Data	BM_Unit_Id Credited_Energy_Volume Fixed_Metered_Volume_Reallocation Percentage_Metered_Volume_Reallocation	APB
Account Period Data	Production/Consumption_Flag BSSC_Limited_Cost_Allocation Energy_Imbalance_Charge Information_Imbalance_Charge Residual_Cashflow_Reallocation_Charge Account_Bilateral_Contract_Volume Account_Period_Balancing_Services_Volume Account_Energy_Imbalance_Volume Account_Credited_Energy_Volume Residual_Cashflow_Reallocation_Proportion	APD
Balancing Services Adjustment Action Data	Balancing_Services_Adjustment_Action_Id Balancing_Services_Adjustment_Action_Cost Balancing_Services_Adjustment_Action_Volume Tagged_Balancing_Services_Adjustment_Action_Volume Repriced_Balancing_Services_Adjustment_Action_Volume Originally-Priced_Balancing_Services_Adjustment_Action_Volume Balancing_Services_Adjustment_Action_SO-Flag Balancing_Services_Adjustment_Action_Stor_Provider_Flag Reserve_Scarcity_Price_Flag	DB2

Market Index Data Information	Market_Index_Data_Provider_ID Individual_Liquidity_Threshold Market_Index_Price Market_Index_Volume	MD2
System Period Data	Period_BSSC_Limited_Costs System_Operator_BM_Cashflow Information_Imbalance_Price_1 Information_Imbalance_Price_2 System_Buy_Price System_Sell_Price Price_Derivation_Code Total_System_BM_Cashflow Total_System_Energy_Imbalance_Cashflow Total_System_Non-Delivery_Charge System_Total_Accepted_Bid_Volume System_Total_Unpriced_Accepted_Bid_Volume System_Total_Priced_Accepted_Bid_Volume Total_System_Energy_Contract_Volume NIV_Tagged_System_Total_Unpriced_Bid_Volume Total_System_Accepted_Offer_Volume NIV_Tagged_System_Total_Unpriced_Offer_Volume Net_Imbalance_Volume Total_NIV_Tagged_Volume NIV_Tagged_SBVA NIV_Tagged_SSVA System_Total_Unpriced_Accepted_Offer_Volume System_Total_Priced_Accepted_Offer_Volume Total_System_Energy_Imbalance_Volume Residual_Cashflow_Reallocation_Denominator Total_System_Residual_Cashflow Total_System_Information_Imbalance_Charge Net_Energy_Sell-Price_Cost_Adjustment Net_Energy_Buy-Price_Cost_Adjustment Net_Energy_Sell-Price_Volume_Adjustment Net_Energy_Buy-Price_Volume_Adjustment Net_System_Sell-Price_Volume_Adjustment Net_System_Buy-Price_Volume_Adjustment Sell-Price_Price_Adjust Buy-Price_Price_Adjust Total_Period_Applicable_Balancing_Services_Volume	SSD

	System_Operator_Production_Imbalance System_Operator_Consumption_Imbalance NIV_Tagged_Energy_Buy_Volume_Adjustment NIV_Tagged_Energy_Sell_Volume_Adjustment PAR_Tagged_Energy_Buy_Volume_Adjustment PAR_Tagged_Energy_Sell_Volume_Adjustment Untagged_EBCA Untagged_EBVA Untagged_ESCA Untagged_ESVA Total_System_Tagged_Accepted_Bid_Volume Total_System_Tagged_Accepted_Offer_Volume Total_System_Repriced_Accepted_Bid_Volume Total_System_Repriced_Accepted_Offer_Volume Total_System_Originally-priced_Accepted_Bid_Volume Total_System_Originally-priced_Accepted_Offer_Volume Total_System_Adjustment_Sell_Volume Total_System_Adjustment_Buy_Volume Total_System_Tagged_Adjustment_Sell_Volume Total_System_Tagged_Adjustment_Buy_Volume Total_System_Repriced_Adjustment_Sell_Volume Total_System_Repriced_Adjustment_Buy_Volume Total_System_Originally-priced_Adjustment_Sell_Volume Total_System_Originally-priced_Adjustment_Buy_Volume Replacement_Price Replacement_Price_Calculation_Volume Stor_Availability_Window_Flag Loss_Of_Load_Probability De-rated_Margin Value_Of_Lost_Load Reserve_Scarcity_Price	
Aggregate Party Period Charges	BSSC_Limited_Cost_Allocation BM_Unit_Cashflow Energy_Imbalance_Cashflow Information_Imbalance_Cashflow Non-Delivery_Charge Residual_Cashflow_Reallocation_Charge RR_Cashflow RR_Instructed_Deviation_Cashflow	PPC

Settlement Period Header	Settlement_Period	SP7
Aggregate Party Day Charges	BSSC_Limited_Cost_Allocation BM_Unit_Cashflow Energy_Imbalance_Cashflow Information_Imbalance_Cashflow Non-Delivery_Charge Residual_Cashflow_Reallocation_Charge Daily_System_Operator_Cashflow RR_Cashflow RR_Instructed_Deviation_Cashflow Total_System_RR_Cashflow	APC
BSC Party Header	Settlement_Date Settlement_Run_Type SAA_Run_Number SAA_CDCA_Run_Number SVAA_CDCA_Settlement_Date SVAA_CDCA_Run_Number SVAA_SSR_Run_Number BSC_Party_Id	BPH
BMU Period RR Data	Period_RR_Accepted_Offer_Volume Period_RR_Accepted_Bid_Volume Period_RR_Instructed_Offer_Deviation_Volume Period_RR_Instructed_Bid_Deviation_Volume RR_Cashflow RR_Instructed_Deviation_Cashflow Deemed_Standard_Product_Offer_Volume Deemed_Standard_Product_Bid_Volume	BRR
BMU Quarter Hour RR Data	Quarter_Hour_Period RR_Activation_Volume RR_Cashflow	BQH
Replacement Reserve Bid	RR_MRID RR_Divisible RR_Linking_Bid_ID RR_Multipart_Bid_ID RR_Exclusive_Bid_ID RR_Status RR_Flow_Direction RR_Auction_MRID	RRB
RR Auction Period (bid)	RR_Time_Interval_Start_Time RR_Time_Interval_End_Time RR_Bid_Resolution	RB1

RR Point (bid)	RR_Position RR_Quantity_Offered RR_Minimum_Quantity RR_Price	RB2
Replacement Reserve Activation	RR_MRID RR_Auction_MRID RR_Flow_Direction	RRA
RR Auction Period (activation)	RR_Time_Interval_Start_Time RR_Time_Interval_End_Time RR_Bid_Resolution	RC1
RR Point (activation)	RR_Position RR_Activation_Price RR_Quantity_Activated	RC2