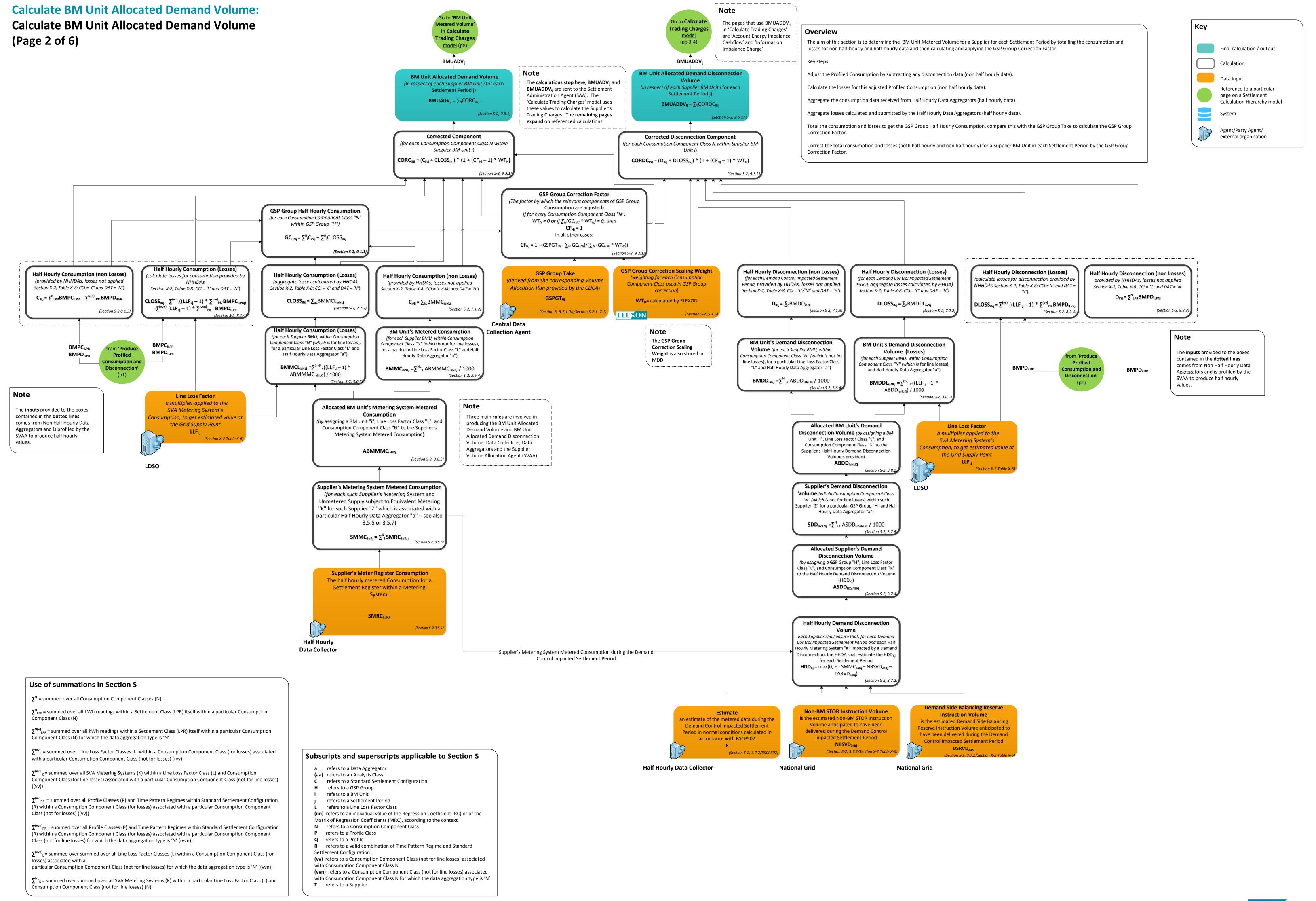
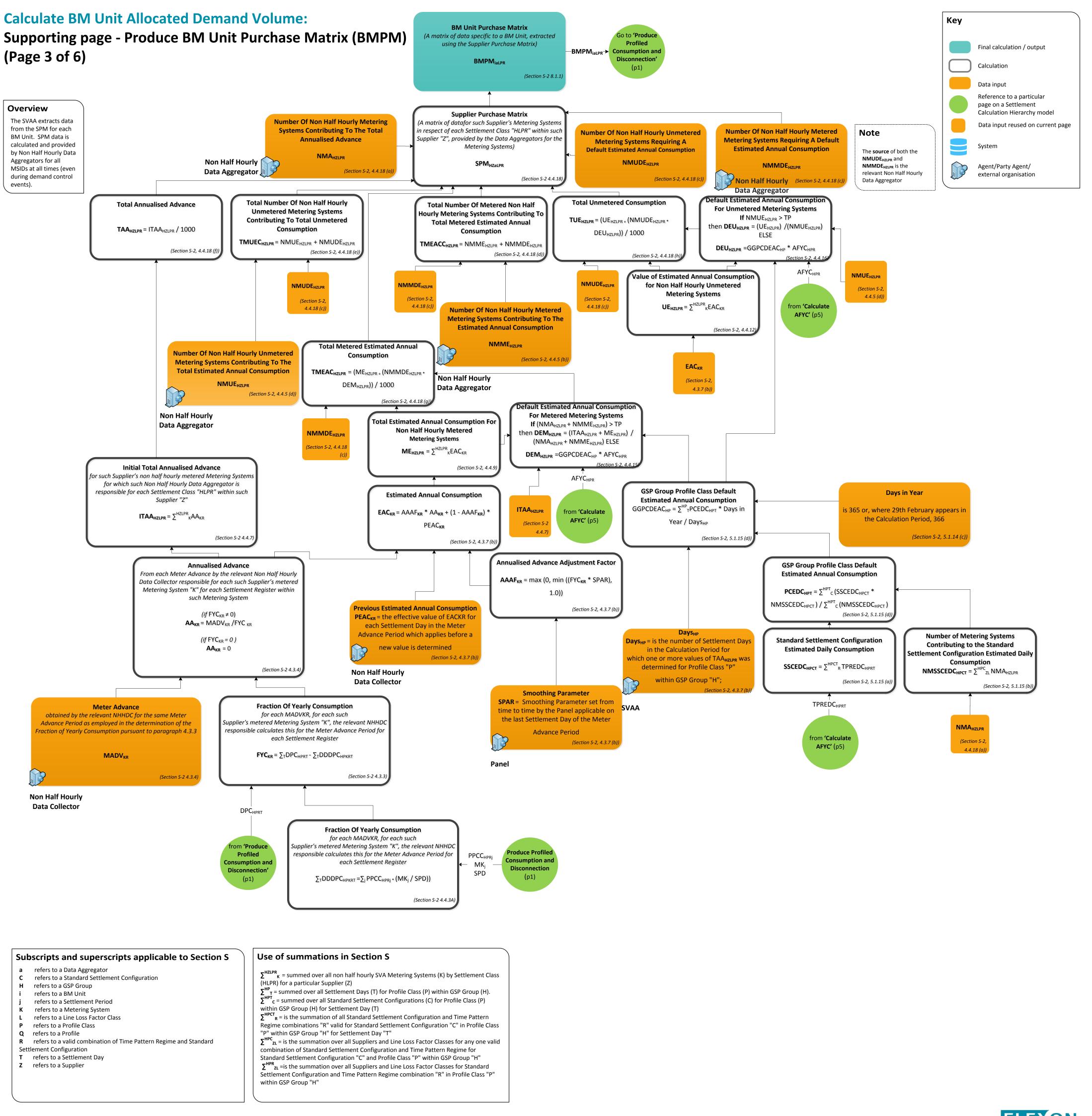
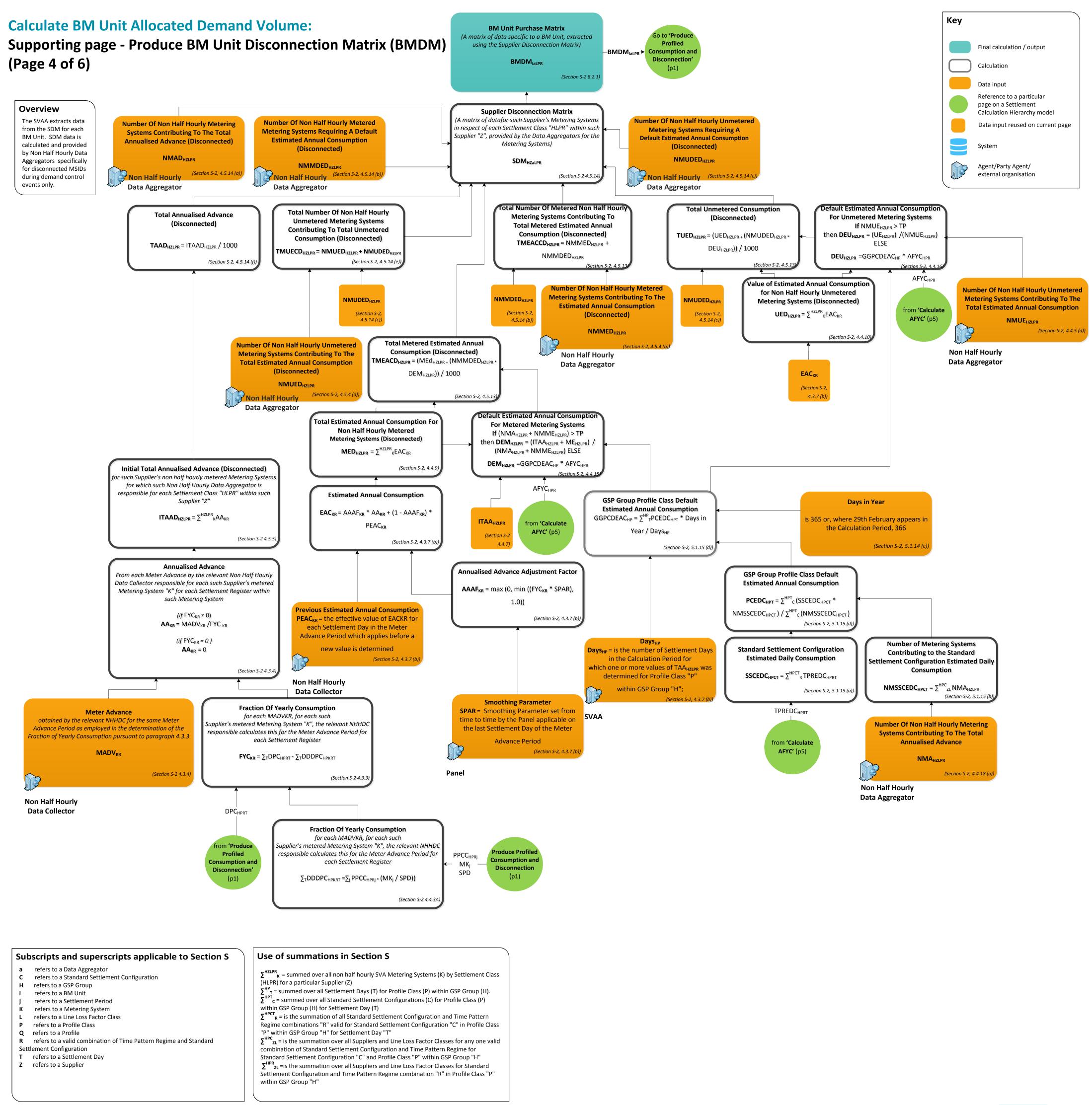
## **Calculate BM Unit Allocated Demand Volume:** Key **Produce Profiled Consumption and Disconnection** Go to 'Calculate BM Unit Allocated (Page 1 of 6) **Demand Volume** Final calculation / output Calculation Overview / How to read **BMPC**<sub>iLPRi</sub> BMPD<sub>iLPR</sub>-Data input The aim of this section is to build the profile coefficient or Reference to a particular **BM Unit's Profiled Consumption BM Unit's Profiled Disconnection** 'fraction of demand' most suited to the Settlement Period (e.g. page on a Settlement A Supplier BM Unit's "I" NHH from 'Produce (for each Supplier BM Unit I for the Consumption Data) by factoring in seasons, time of day, etc.) and apply it to each -BMDM<sub>iaLPR</sub> Calculation Hierarchy model Consumption profiled per Settlement Period "j" for a **BMDM'** (p4) consumption data item provided by Data Aggregators on particular Consumption Component Class – multiply each behalf of Suppliers. from 'Produce System −BMPM<sub>iaLPR</sub>→ element of the BMPM by the PPCC **BMPD**<sub>iLPR</sub> = $\sum_{a}$ (BMDM<sub>iaLPR</sub> \* PPCC<sub>HPRj</sub> \* (M<sub>Kj</sub> / SPD)) **BMPM'** (p3) Start with the inputs at the bottom of the model and follow the $BMPC_{iLPRj} = \sum_{a} (BMPM_{iaLPR} * PPCC_{HPRi})$ calculations to the outputs at the top. Agent/Party Agent/ external organisation (Section S-2, 8.2.2) (Section S-2 8.1.2) Key steps: Use the relevant variables and coefficients to create the Estimated Regional Average Demand Per Customer (energy). **Metering System Period Period Profile Class Coefficient Settlement Period Disconnection Duration** In respect of each Settlement Day, each GSP Group "H" and each valid combination of Duration Divide this by the Group Average Annual Consumption to luration in hours in a given Settlemer Profile Class "P" and Standard Settlement Configuration "C", Period Profile Class create the Basic Period Profile Coefficient for the Settlement Period for which a given Metering Coefficients for each combination of Time Pattern Regime associated with such SPD = 0.5System was subject to Demand Standard Settlement Configuration and such Standard Settlement Configuration "R" Disconnection) **Daily Profile Coefficient** Create the Period Profile Class Coefficient by taking into if the Profile Class "P" represents switched Load Metering Systems: (Section X-2, Table X-6) In respect of each Settlement Day "D", account multiple registers e.g. Economy 7. Aggregate this for each GSP Group "H" and each valid each Settlement day and provide to NHHDCs. combination of Profile Class "P" and Time for Normal Registers: Pattern Regime within Standard Multiply the PPCC by each element of the consumption data $PPCC_{HPRj} = LRPC_{HPCj} * Q_{Rj} / AFYC_{HPR}$ -DPC<sub>HPRT</sub>→ Settlement Configuration "R" (e.g. EACs, AAs, etc.) provided by Data Aggregators (BMPM) to get the Profiled Consumption for a Supplier in the Settlement For Low Registers: NHHDC $\mathbf{DPC}_{\mathbf{HPRT}} = \sum_{i} PPCC_{\mathbf{HPR}i}$ $PPCC_{HPRj} = NRPC_{HPCj} * Q_{Rj} / AFYC_{HPR}$ Follow a similar process for Demand Disconnection events – In any other case (Section S-2 6.8.2 these are infrequent events. $PPCC_{HPRi} = P_{HQi} * Q_{Ri} / AFYC_{HPR}$ ${ extstyle -}\mathsf{PPCC}_\mathsf{HPRj}$ (in the case of a demand control event only)-For Unmetered Supplies, use **AAYFC** instead of **AYFC**: (Section S-2 6.7. **Annual Fraction of Yearly Consumption Basic Period Profile Coefficient Period Time Pattern State Indicator Normal Register Profile Coefficient Low Register Profile Coefficient** estimate of the fraction of the total showing for a particular combination of Time deemed fraction of annual Consumption for a Switched deemed fraction of annual Consumption for a Consumption of a multi-register Standard in respect of each value of Estimated Pattern Regime and Standard Settlement Load Metering System in a Settlement Period recorded on Switched Load Metering System in a Settlement Period Settlement Configuration attributable to each Regional Demand Per Customer Configuration whether the associated Settlement those meter registers which are 'on' during times when Note recorded on those meter registers which are 'on' there is **no** switched load Consumption Registers are recording Metered Data Settlement Register of that Standard during times when there is switched load Consumption $P_{HQj} = max(y_{HQj} / (GAAC_{HQ} * 2000), 0)$ $Q_{Rj} = 1$ Settlement Configuration The Period Time Pattern State (else) **LRPC**<sub>HPCj</sub> **Indicator** is derived using Clock $AYFC_{HPR} = UAYFC_{HPR} + AYFCA_{HPC}$ $Q_{Rj} = 0$ Interval data from the Market Section S-2 6.6.17 (e) (i) and (ii (Section S-2 6.6.17 (e) (i) and ( (Section S-2 6.5.3 ( (Section S-2 6.1.16 (c) and (d) (Section S-2 6.4.11 (a) and (b) Domain Data (MDD) system and Teleswitch data from the Teleswitch Provider. $LRPC_{HPCj}$ $NRPC_{HPCj}$ **AYFC<sub>HPR</sub> Group Average Annual Consumption Estimated Regional Average Demand Per Customer** (The average annual Consumption for each (An estimate of customer Consumption by profile and GSP Group in respect of from 'Low and GSP Group for each profile class - energy) from 'Low and each Settlement Period - energy) **Normal Register Normal Register** from 'Calculate **Profile Co-Profile Co-AFYC'** (p5) Efficients' (p6) $\bar{y}_{HQj} = RC_{HQ0j} + (RC_{HQ1j} * Mon_T) + (RC_{HQ2j} * Wed_T) + (RC_{HQ3j} * Thu_T) +$ Efficients' (p6) (Section S-2 5.1.4 $(RC_{HQ4j} * Fri_T) + (RC_{HQ5j} * NET_H) + (RC_{HQ6j} * S) + (RC_{HQ5j} * (S)^2)$ **ELEXON** (Section S-2 6.5.3 (f)) (PrA) **Subscripts and superscripts applicable to Section S a** refers to a Data Aggregator **Regression Coefficients** (aa) refers to an Analysis Class Mon<sub>T</sub>, Wed<sub>T</sub>, Thu<sub>T</sub> and Fri<sub>T</sub> **Sunset Variable** Noon Effective Temperature (In respect of each GSP Group for each refers to a Standard Settlement Configuration (The number of minutes after 1800 hours (In respect of each GSP Group for each Settlement Day) refers to a GSP Group Mon<sub>T</sub> = 1 if Settlement Day "D" is a GMT that the sun is deemed to set) Settlement Day) refers to a BM Unit Monday, else = 0; $Wed_T$ , $Thu_T$ and $Fri_T$ are RC<sub>HQ(nn)j</sub> determined as equal to the value refers to a Settlement Period S = SUNT - SIX PM **NETH** = $0.57T_{HT} + 0.28T_{HT-1} + 0.15T_{HT-2}$ determined mutatis mutandis to **Mon**<sub>T</sub> but of those coefficients MRCQ(aa)(nn)j which refers to a Line Loss Factor Class as if references to "D" were to a apply in respect of the relevant Profile (nn) refers to an individual value of the Regression Coefficient (RC) or of the Wednesday, a Thursday or a Friday "Q" and the Analysis Class "(aa)" Matrix of Regression Coefficients (MRC), according to the context (Section S-2 6.5.2 (Section S-2 6.5.3 ( (Section S-2 6.5.1 refers to a Profile Class (Section S-2 6.5.3 ( **Q** refers to a Profile refers to a valid combination of Time Pattern Regime and Standard **Matrix of Regression Coefficients GSP Group Measured Temperatures Sunset Time SIX PM Settlement Configuration** (for Settlement Day "D", "D-1" and "D-2", (The time duration from the start of the (The time duration from the start of the MRCQ<sub>(aa)(nn)j</sub> values of the "D" is the then current Settlement Day, "D-Settlement Day to 1800 hours GMT on that Settlement Day to the time of sunset) Matrix of Regression Coefficients 1" is the immediately preceding and so on.) Use of summations in Section S Settlement Day) supplied by the Profile Administrator SUNT where the subscript "(nn)" represents T<sub>HT</sub>, T<sub>HT-1</sub>, T<sub>T-2</sub>: provided by the SIX\_PM $\Sigma_a$ = summed over all Data Aggregators individual values of MRCQ(aa)(nn)i Temperature Provider (Section S-2 6.5.2) $\Sigma_i$ = summed over all Settlement Periods (Section S-2 6.5.2) (Section S-2 6.5.3 (c)) (Section S-2 6.5.1 ELEXON **Settlement Calculation Hierarchy** (PrA) **Sunset Provider Temperature Provider** Feb 2016, Version 1.0 © ELEXON 2016

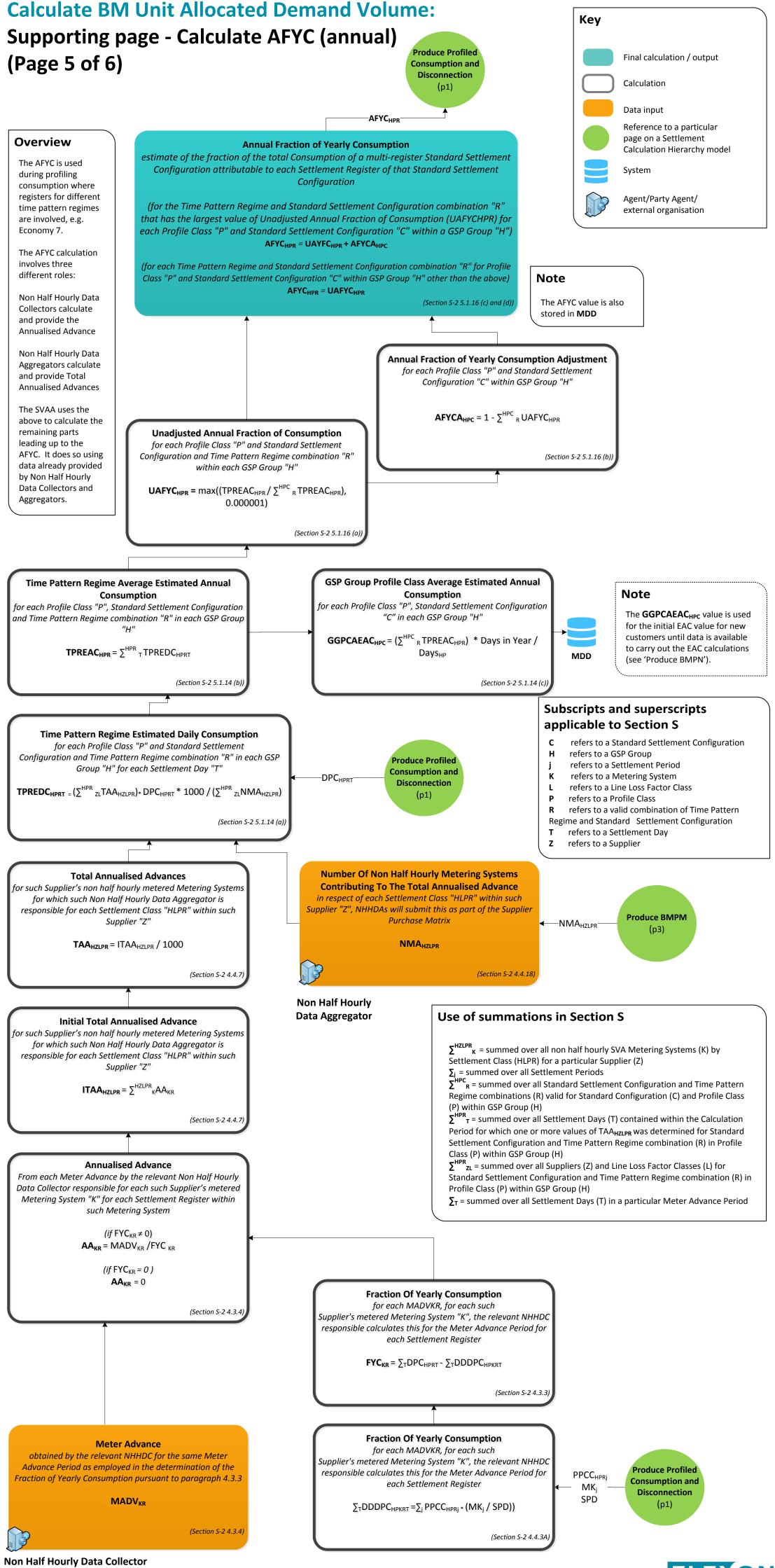


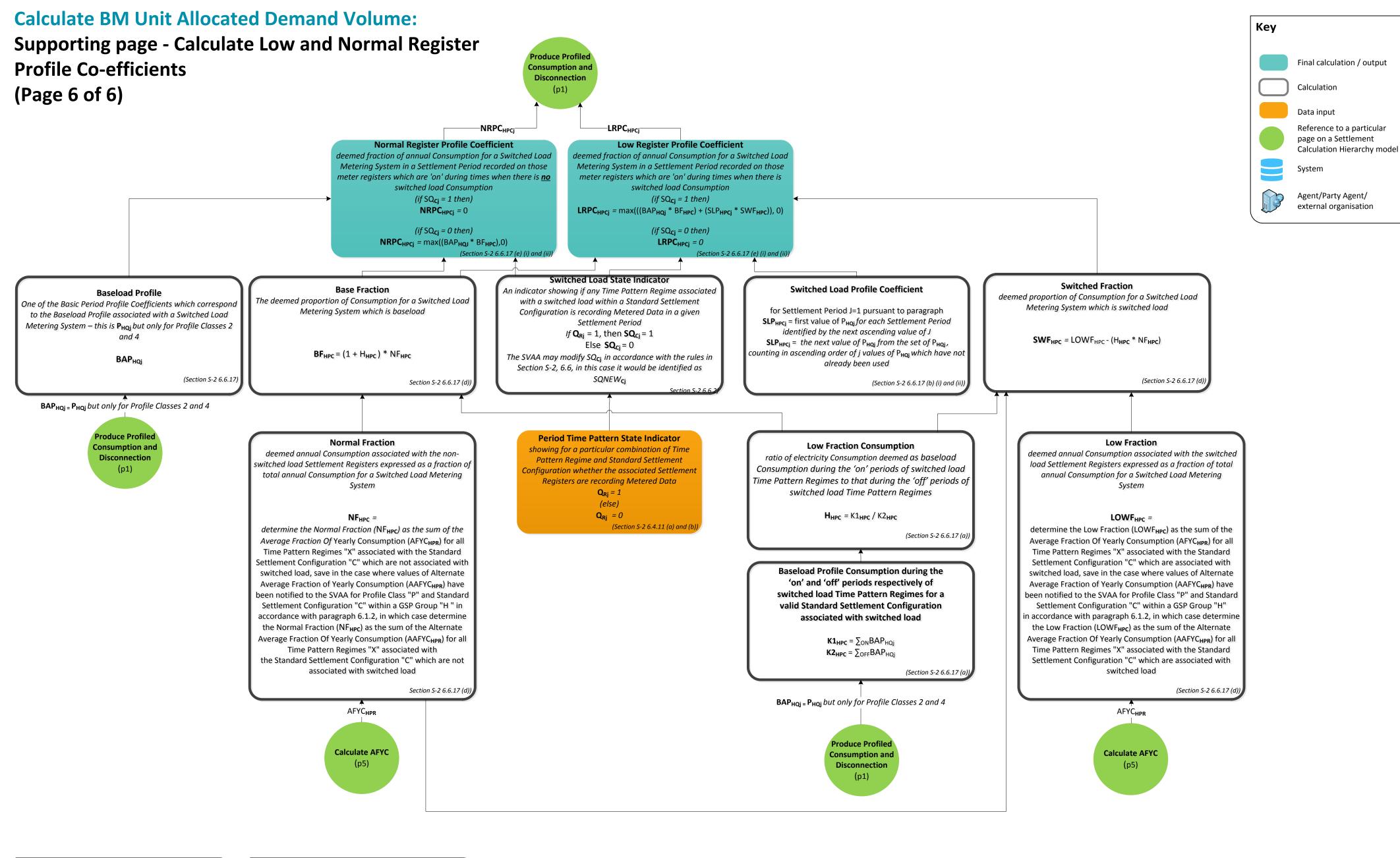
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## **Subscripts and superscripts** applicable to Section S

- **c** refers to a Standard Settlement Configuration
- refers to a GSP Group
- refers to a Settlement Period
- refers to a Profile Class
- **Q** refers to a Profile

## **Use of summations in Section S**

 $\Sigma_{ON}$  = is the summation over all Settlement Periods in the Settlement Day for which SQNEW<sub>Oi</sub> = 1

 $\Sigma_{OFF}$  = is the summation over all Settlement Periods in the Settlement Day for which  $SQNEW_{Qi} = 0$