Project Nexus Principle Workshop
ALLOCATION

15 January 2010

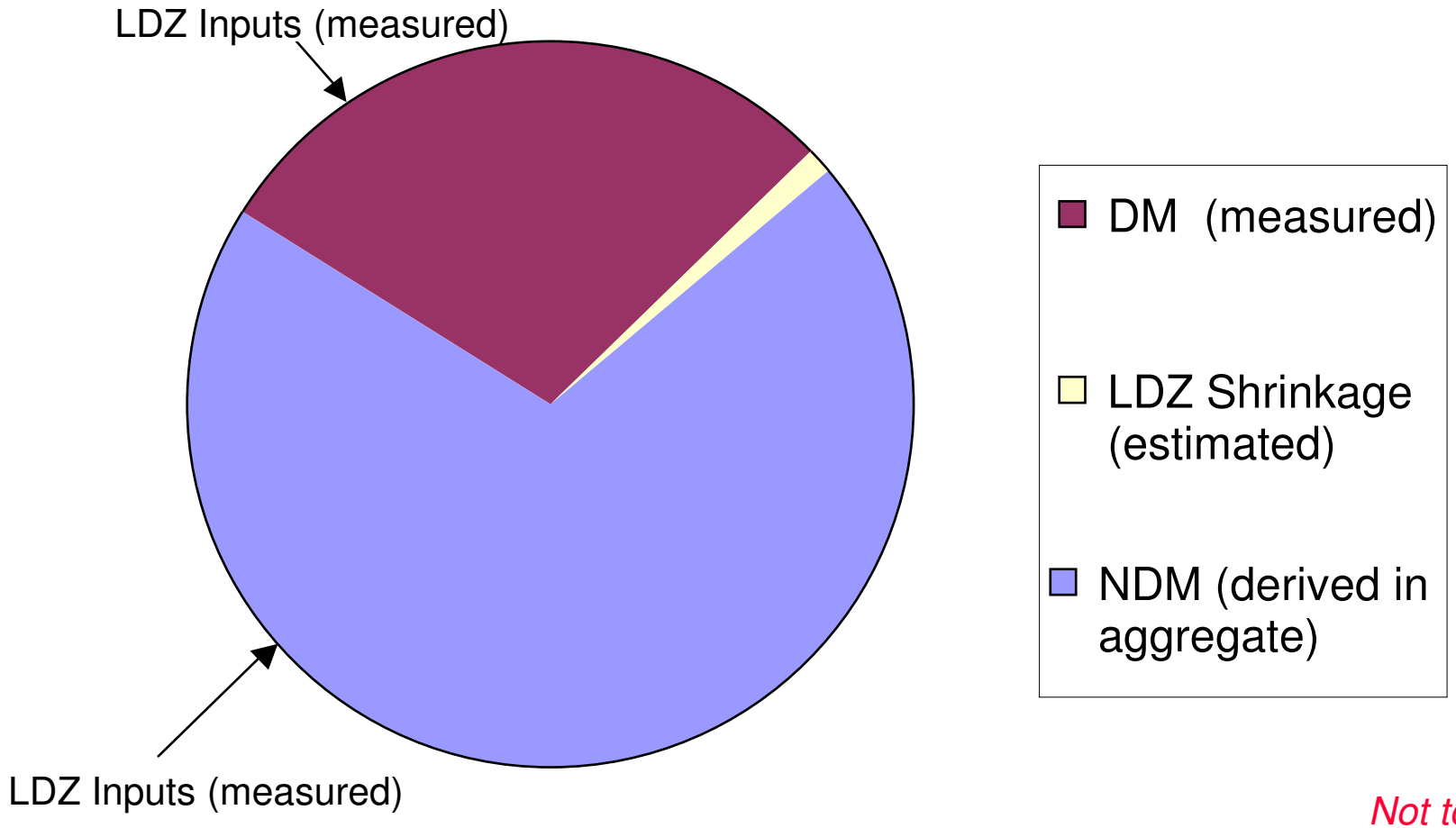
Allocation processes – why are they needed?

- Allocation rules are needed to share out all energy in an LDZ
  - Before the day – Nominations process
  - After the day – Energy balancing and commodity billing processes
- Need to measure or estimate all inputs and outputs
- Currently do not have daily reading equipment on all meter points (21+ million)
- So, need some means of estimating demand for non-daily metered (NDM) meter points

- *Will need to share out energy fairly between remotely and non-remotely read meters until the last dumb meter is upgraded/removed*

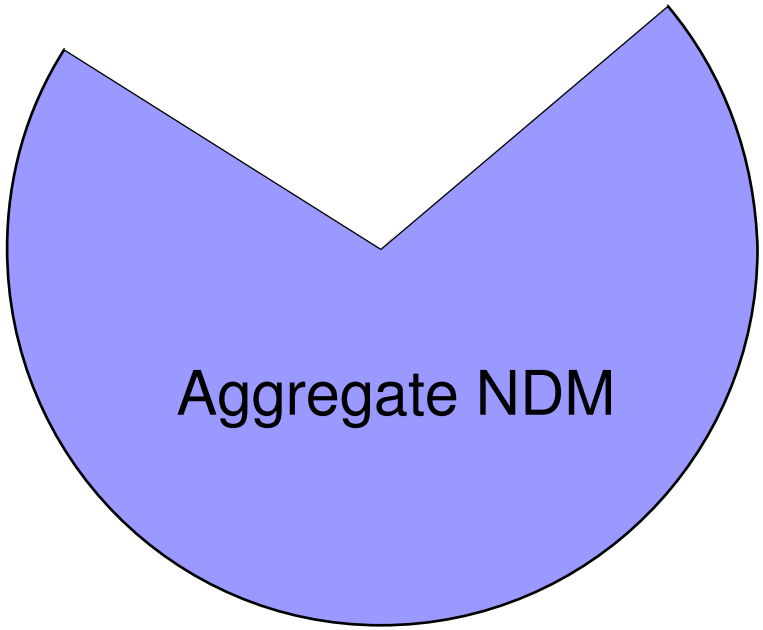
Energy in the LDZ

NDM Consumption = LDZ Demand – LDZ Shrinkage – DM Consumption



Not to scale

NDM Demand Attribution



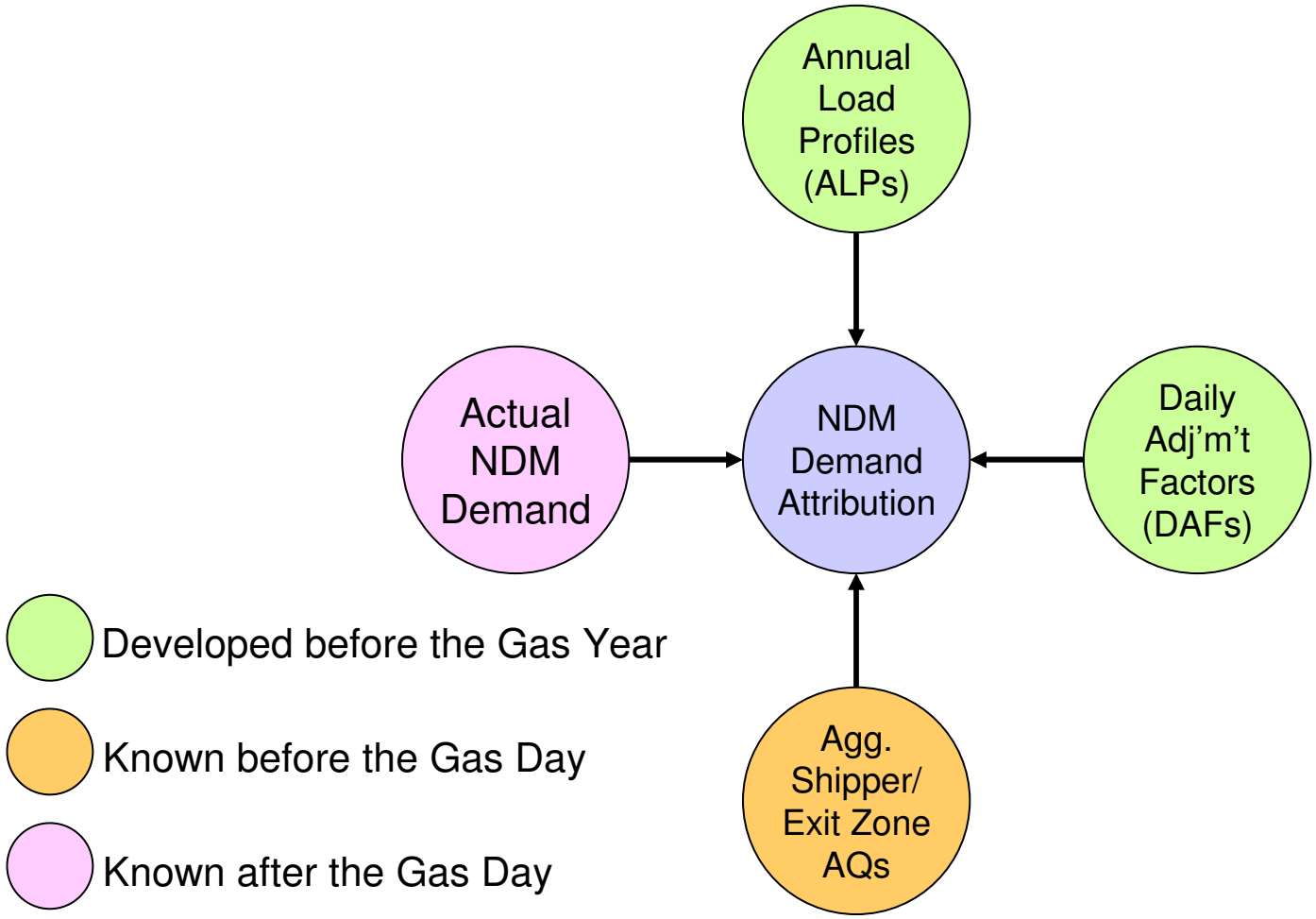
NDM profiles apportion demand in aggregated combinations of:

End User Category

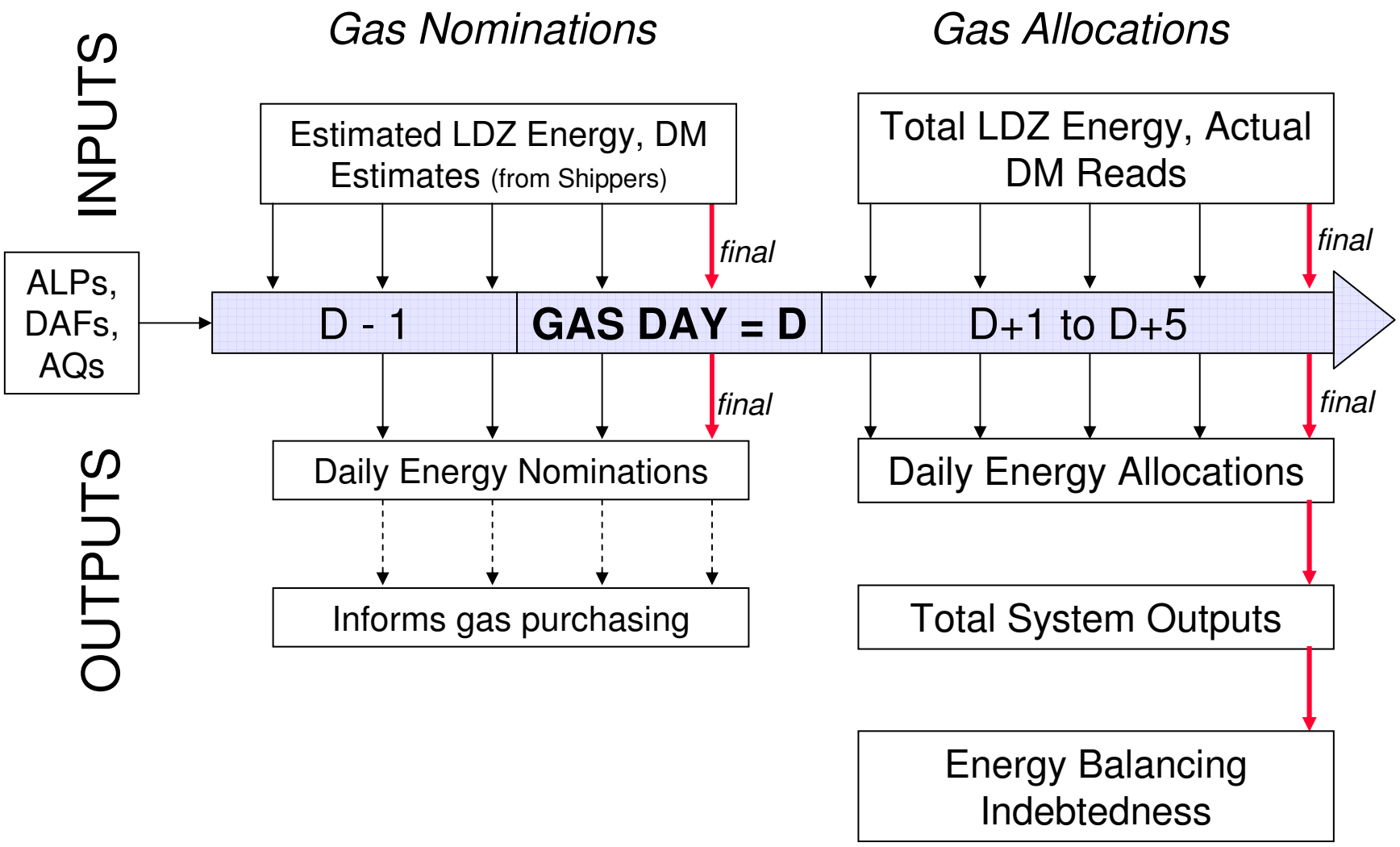
Shipper

Exit Zone

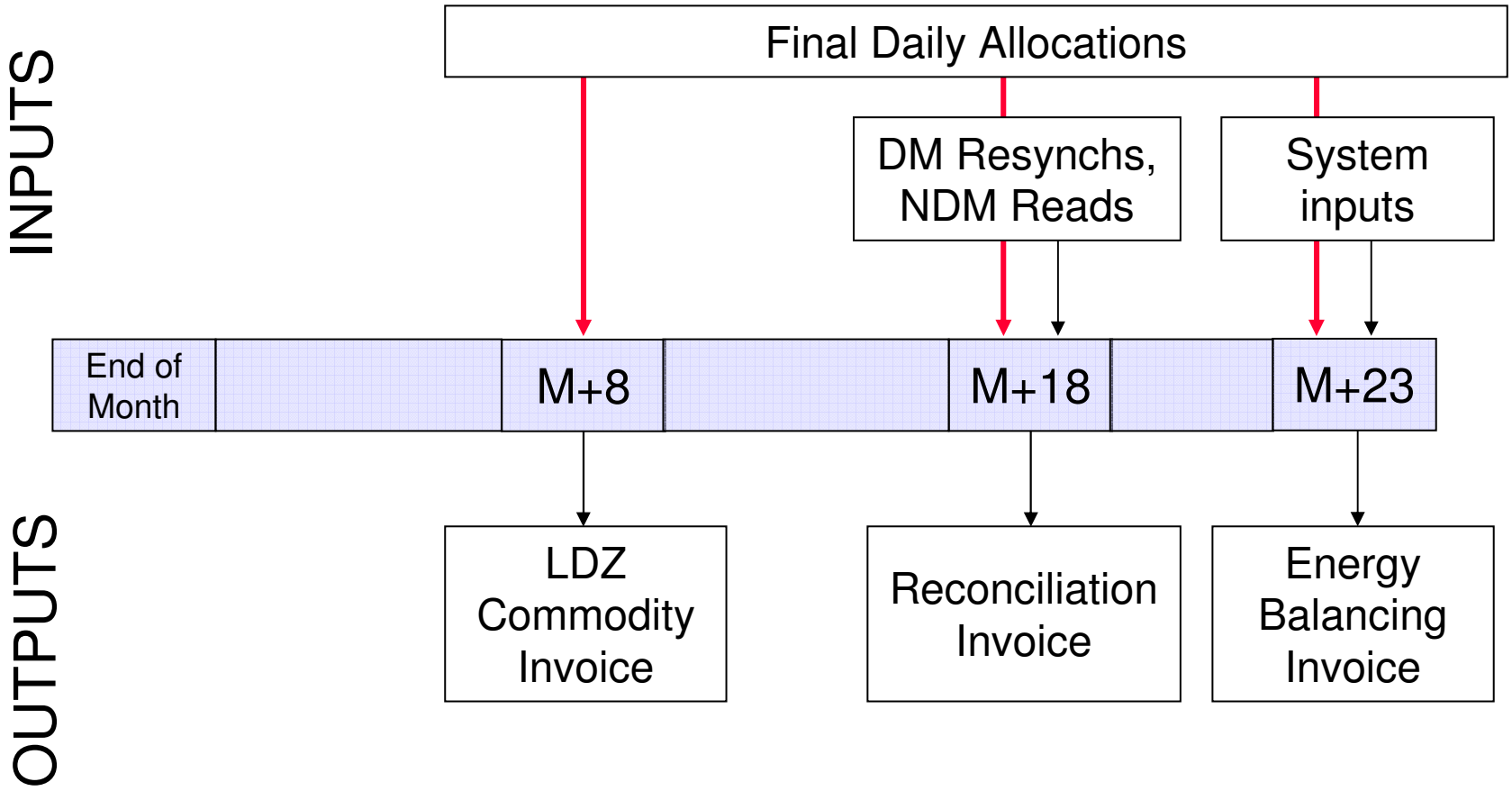
Inputs to NDM Demand Attribution



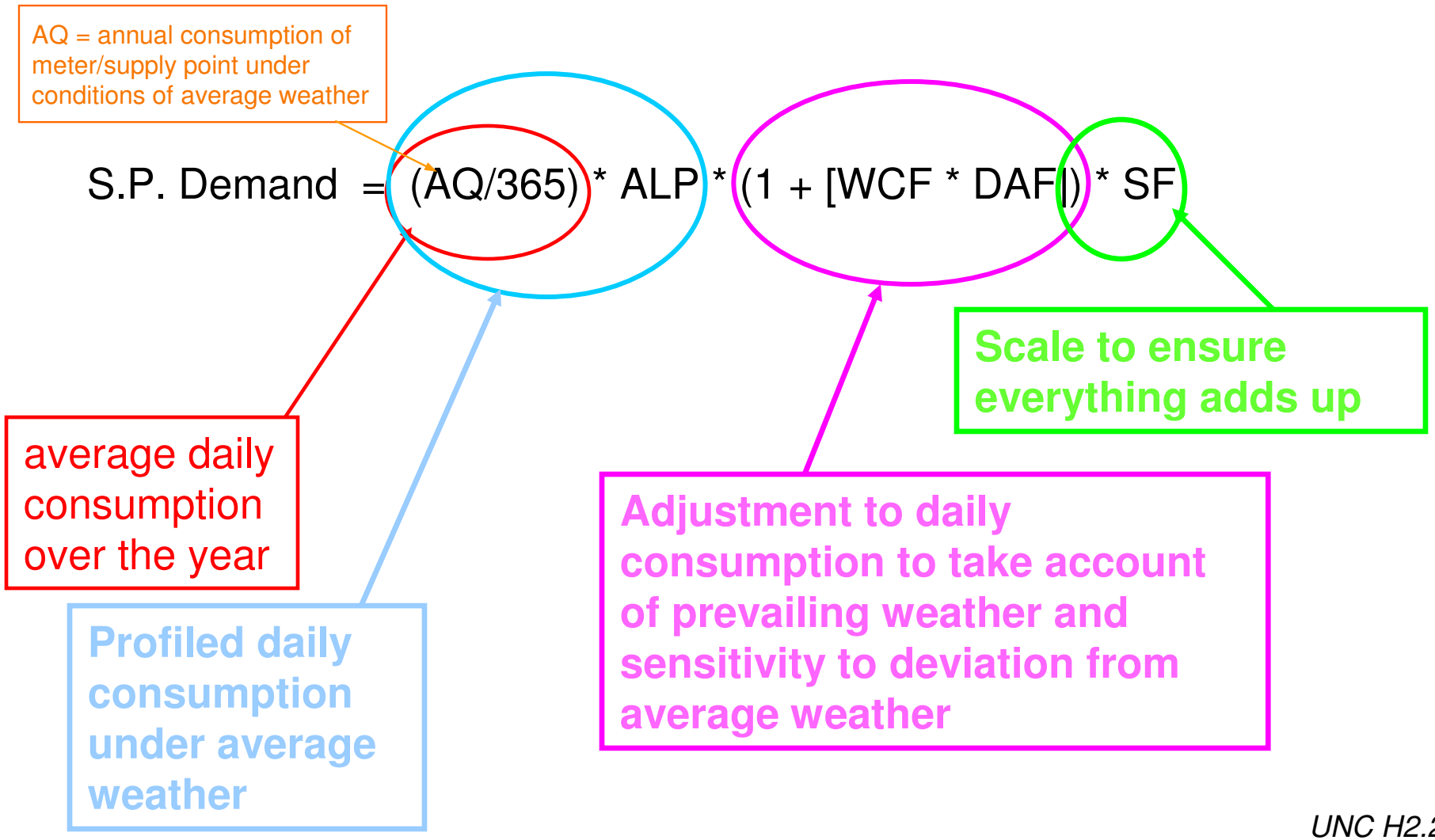
Allocation processes – Timelines (1)



Allocation processes – Timelines (2)



NDM Apportionment Formula



UNC H2.2.1

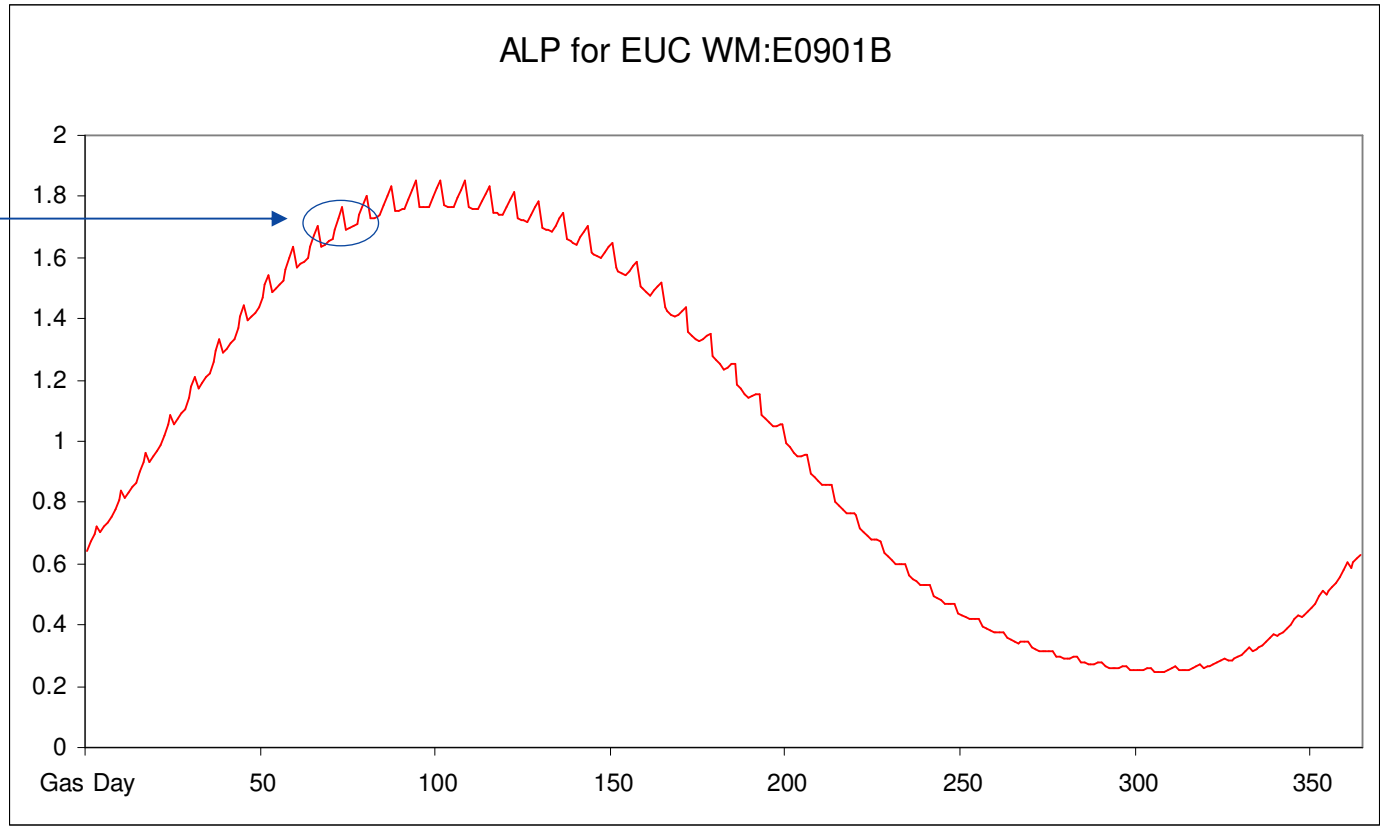
End User Categories

- NDM Energy currently allocated by End User Category – "EUC"
- All NDM sites in an EUC treated identically for nomination and allocation
- Assigned to an EUC based on LDZ and supply point AQ
- Each EUC has its own Annual Load Profile and Daily Adjustment factor
- ALPs and DAFs created using daily read data from the NDM Sample
- 429 EUCs – 33 per LDZ

Annual Load Profile

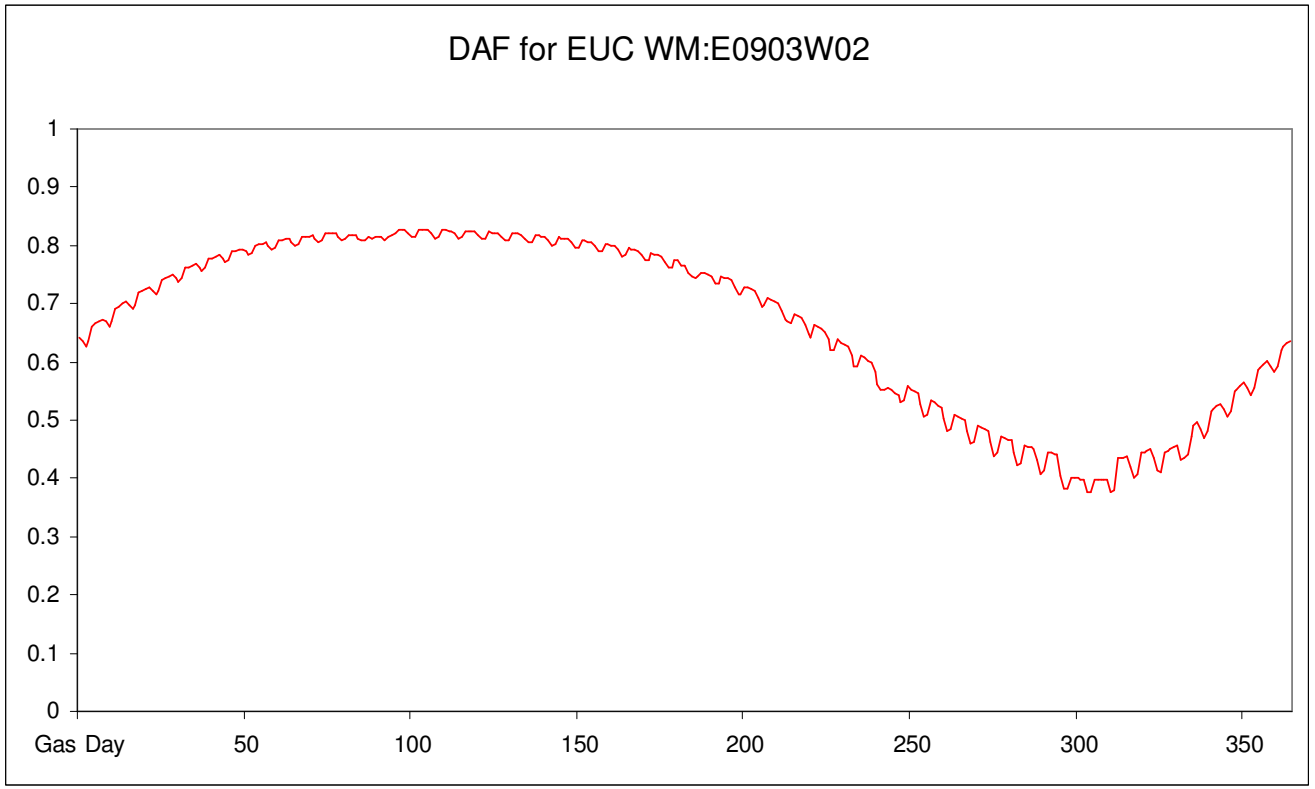
- ALP : ratio of seasonal normal daily consumption in EUC to average daily seasonal normal consumption in that EUC over the year
- Example of 365 ALPs for a Smaller Supply point EUC (weather-sensitive):

Domestic usage – increases at weekends



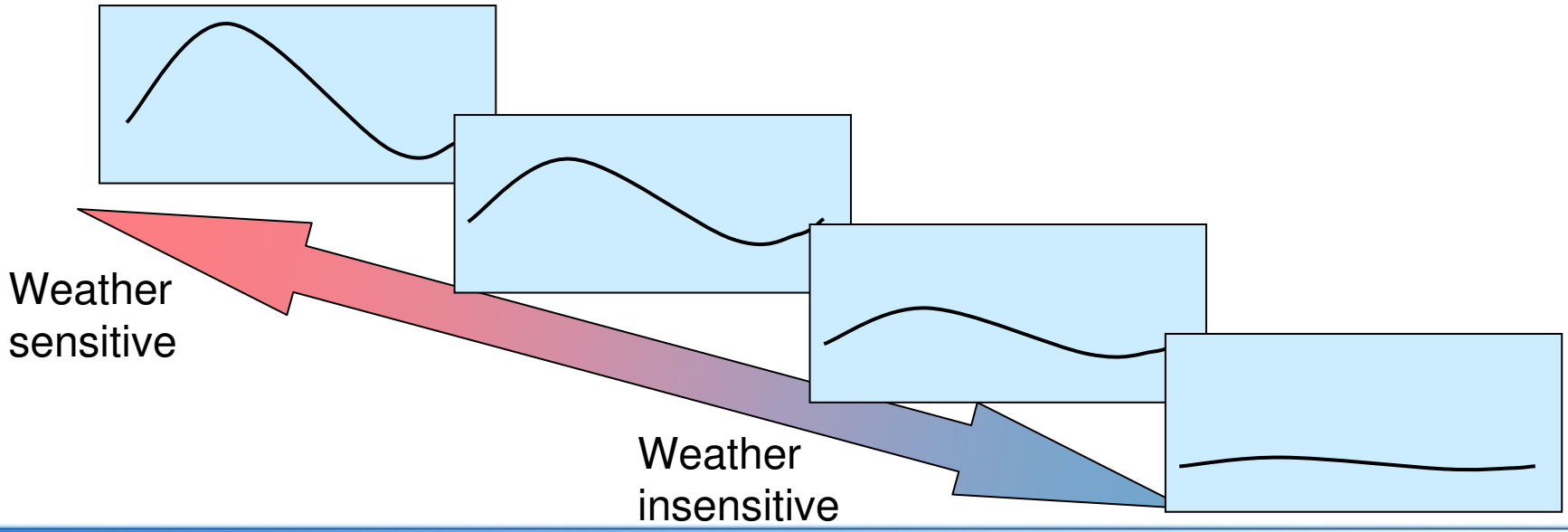
Daily Adjustment Factor

- DAF : ratio of percentage weather sensitivity of EUC to percentage weather sensitivity of total LDZ demand
- Example of a DAF for a Larger Supply point EUC (slightly below average weather-sensitivity):

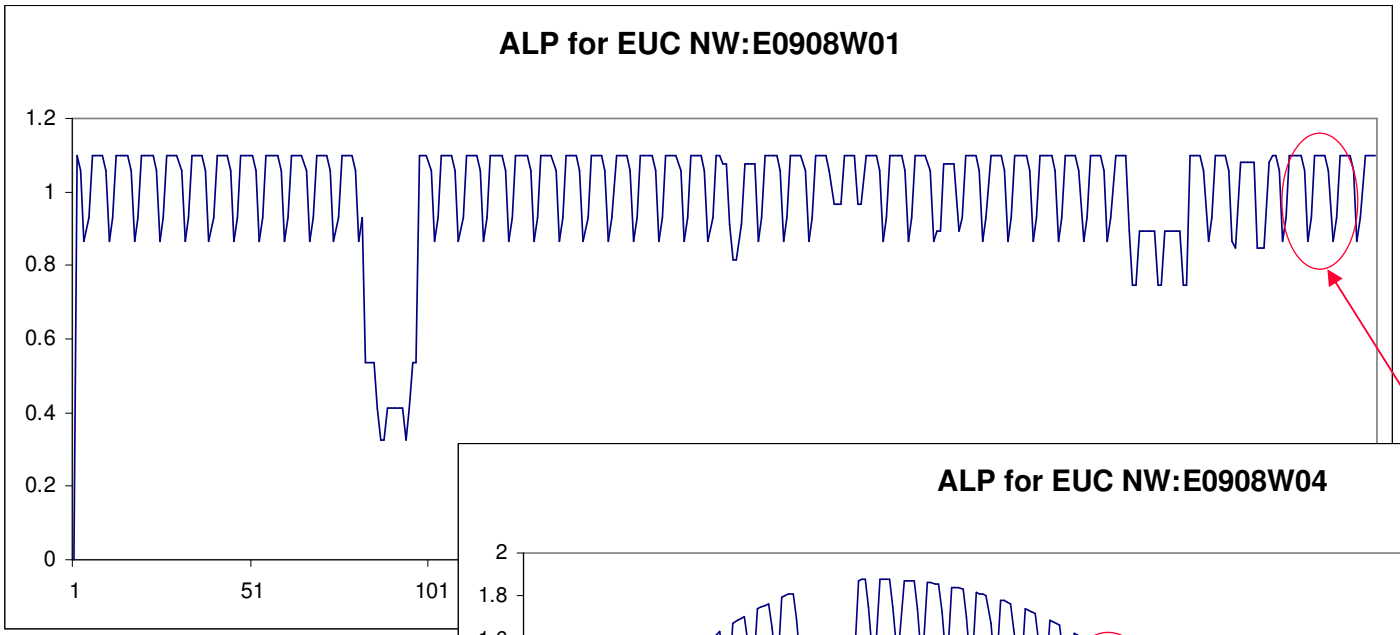


Winter:Annual Ratio (WAR) Bands

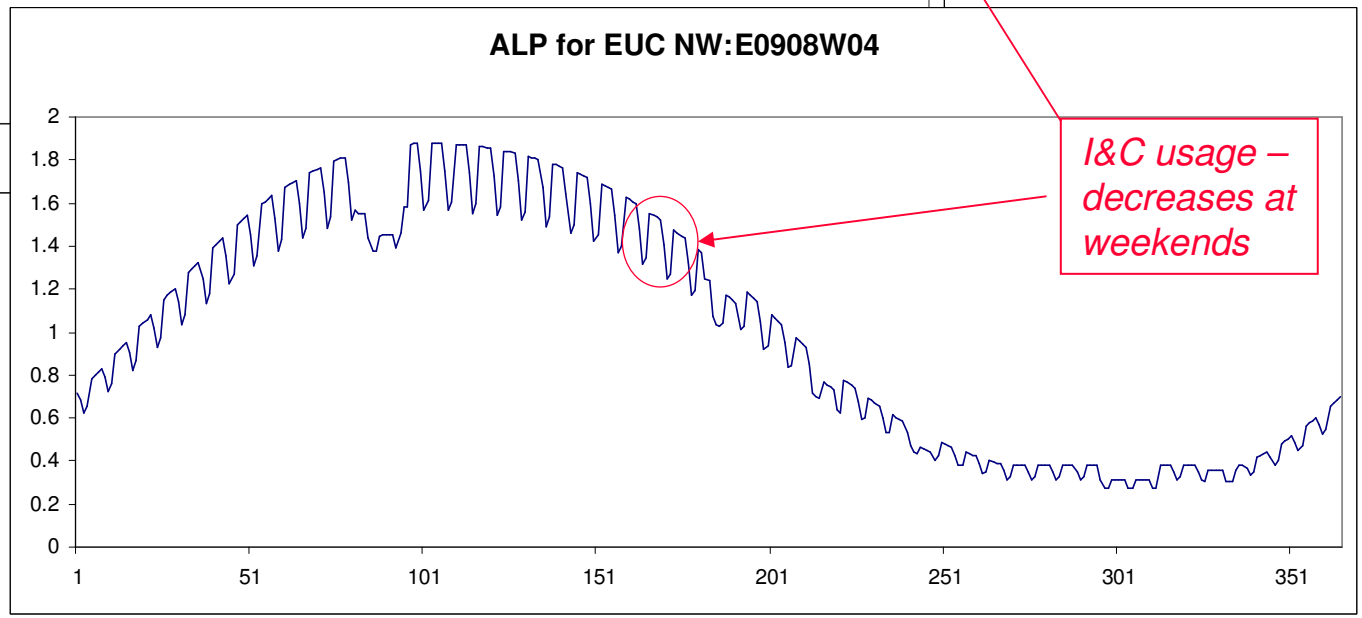
- Higher AQ Bands have a standard EUC plus 4 differential EUCs based on ratio of winter consumption to total annual consumption
- Monthly read sites with adequate read history allocated automatically to a WAR Band based on system calculation during AQ review



Variation in ALPs

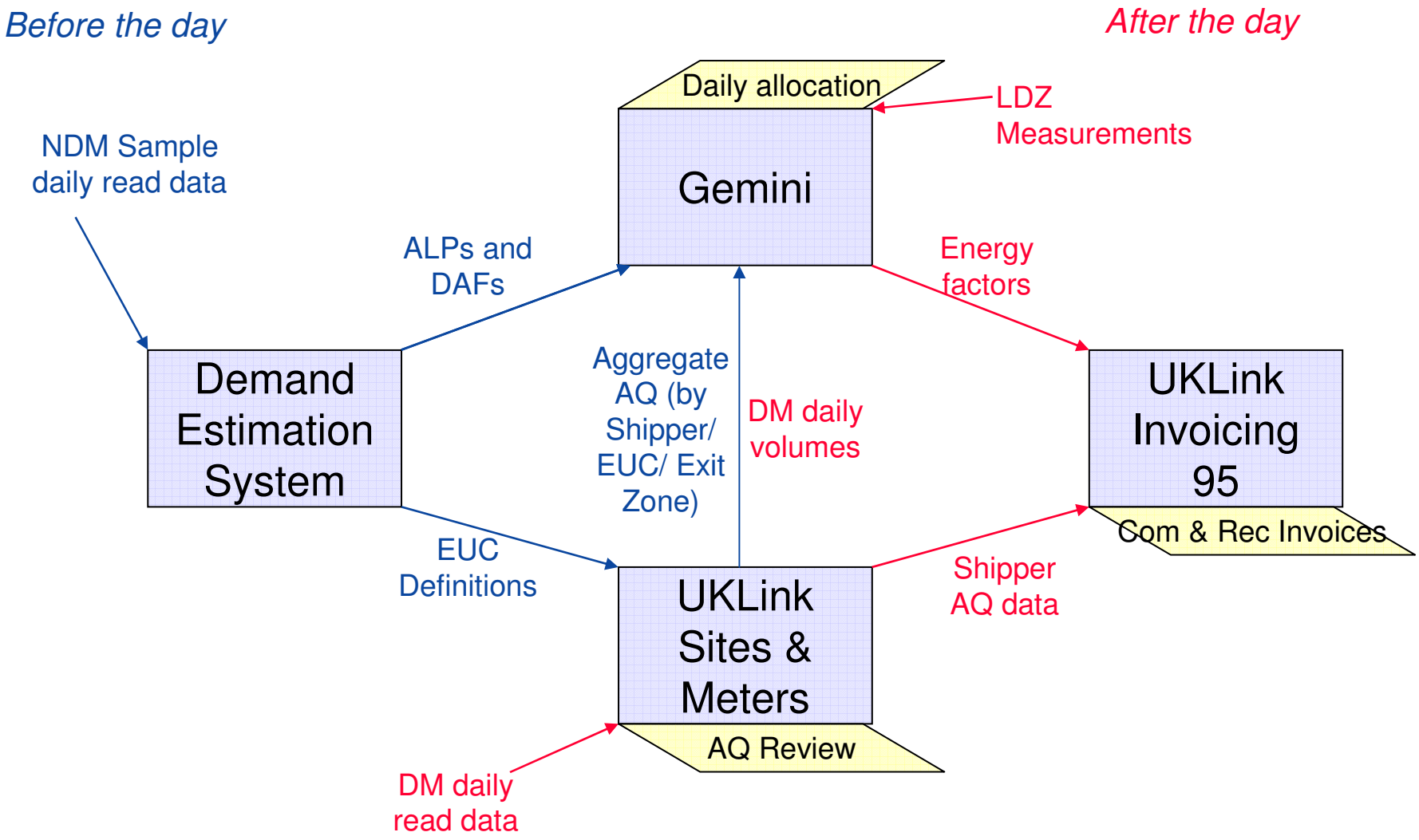


- Left : a weather-insensitive Larger Supply Point ALP



- Right: a highly weather-sensitive Larger Supply Point ALP

xoserve System Context



Consultation Responses

Ref	Requirement	Rationale	Source
4.6	Daily energy allocations for a large part, if not all, of the metering points	It would be cost effective to plan for the system to be scalable to this level from the outset to ensure that long term costs are minimised to the industry. This would be in the interests of the wider gas industry and to gas consumers who ultimately would pay the costs of introducing a system that was not appropriately scalable	E.ON UK
10.7	Use energy consumption data to develop an additional SSP profile for I&C sites	Under the current regime all energy consumption data that is available for SSP sites that are classified as I&C is ignored when developing the demand forecasts and allocation profiles. We believe that it would be beneficial to actually use this data and develop an additional SSP profile for I&C sites. This should improve energy allocation within the SSP market and therefore correctly target costs.	EDF Energy
10.8	Shipper demand allocation data split out by market sector (SSP & LSP) and by LDZ on a daily basis.	For demand forecasting and for managing the ability to download up to date historical and forecasting data.	Scottish and Southern Energy
10.10	Create a new EUC band for Small Supply Points.	Segmenting domestic and commercial sites from End User Category (EUC) band 1 would enable more accurate profiling and billing. Such sites could be identified using the existing I/D marker in sites and meters database and maintained via the shipper nomination process.	GDF Suez

Allocation – Areas to Consider

- Use of data from Smart/Advanced meters
  - Treatment of missing read days
- Equitable treatment of remote/non-remote sites throughout the roll-out
- Possible scale-down of Demand Estimation as roll-out progresses
- Possible review of Weather Correction Factor
  - Does not currently use weather data
- Interaction with UNC Sub-Committees
  - Demand Estimation Sub-Committee
  - Energy Balancing Credit Committee