

Project Nexus Principle Workshop

ALLOCATION - OPTIONS

29 January 2010

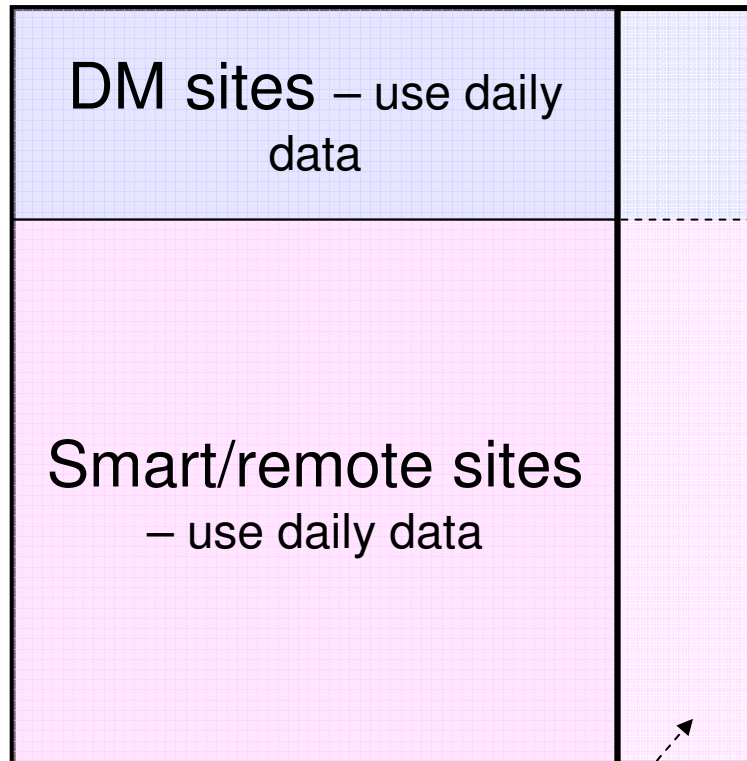
(Neutral) Terminology in this Presentation

- Site – using neutral term – not specifying Meter Point/Supply Point/other
- DM – Transporter-managed daily metered and balanced sites, including Unique sites
 - Assuming this is still required for large consumers or interruptibles
- Smart/remote – non-DM sites with timely remote access to meter reads which are used for balancing
- Consumption – could be reads/volume/energy – decision not required at this stage

Ensuring completeness of Allocations

- Total metered site consumptions will never add up exactly to total LDZ throughput – could be over or under
- Causes of difference could include:
 - Consumer theft
 - Site metering/measurement errors
 - Missing meters
 - Missing reads
 - LDZ measurement errors, etc.
- Will need to apply a “correction” every day to initial measurements
- Following slides include this and suggest different methods of apportionment

Allocation Future Principle – as described by E.ON



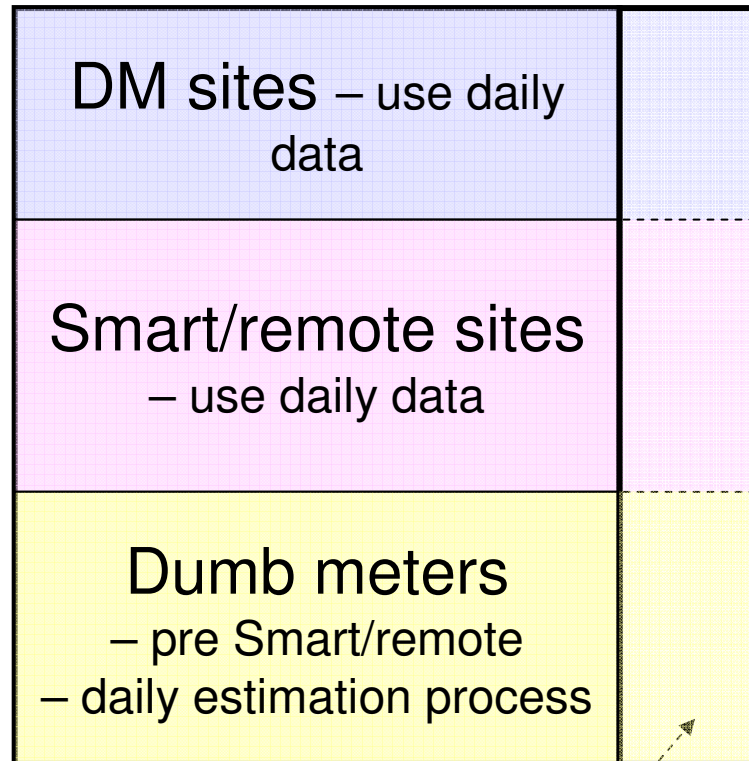
Daily balancing correction to apportion “unaccounted for gas”

- Daily “Balancing Correction” required to ensure that all gas is allocated
- Could be positive or negative
- Could be apportioned based on:
 - Site AQ
 - Daily consumption
 - Other?
- Could be applied to:
 - Domestic only
 - Non-DM only
 - All sites
- Following slides assume correction applied to all sites – working assumption only

Transition to Allocation Future Principle

- Want to use Smart/remote reads before roll-out complete
- Need a transitional arrangement which treats pre/post roll-out sites fairly
- Applying “balancing correction” to one sector alone would be an unfair cross-subsidy
- Need a reliable daily estimated consumption equivalent to daily reads
- OPTION: Develop a new standalone daily estimation calculation, not reliant on scaling factor
 - E.g. use ALP & DAF
 - New Weather Correction Factor based on actual CWV v seasonal normal CWV
 - CWV = Composite Weather Variable – amalgamation of actual, historic and seasonal normal temperatures and wind speed

Allocation Future Principle - Transitional



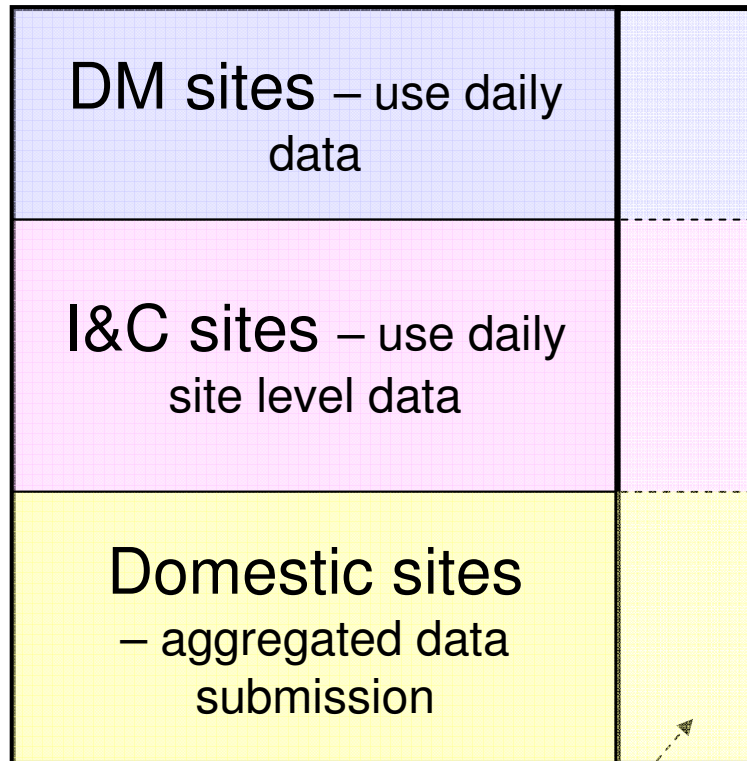
Daily balancing correction to apportion “unaccounted for gas”

- New daily estimation calculation for dumb meters, not reliant on scaling factor
 - E.g. use ALP & DAF
 - New Weather Correction Factor based on actual CWV v seasonal normal CWV
- Could have separate profiles for I&C and Domestic based on MSF
- Same estimation mechanism could be used for Smart/remote on missing read days
 - Replace with actuals if received within D+5

Alternative Options - Rationale

- Cost of gas to a current Domestic site
 - Average AQ c. 19,000 kWh
 - Average daily consumption 52 kWh
 - At 1.2p approximate current SAP = 62p/day
- 5% error in allocation = 3p/day
- Can the cost and complexity of submitting daily actuals for all 21 million domestic sites be justified?
- Are there any alternative options to leverage the new technology in a less complex manner?

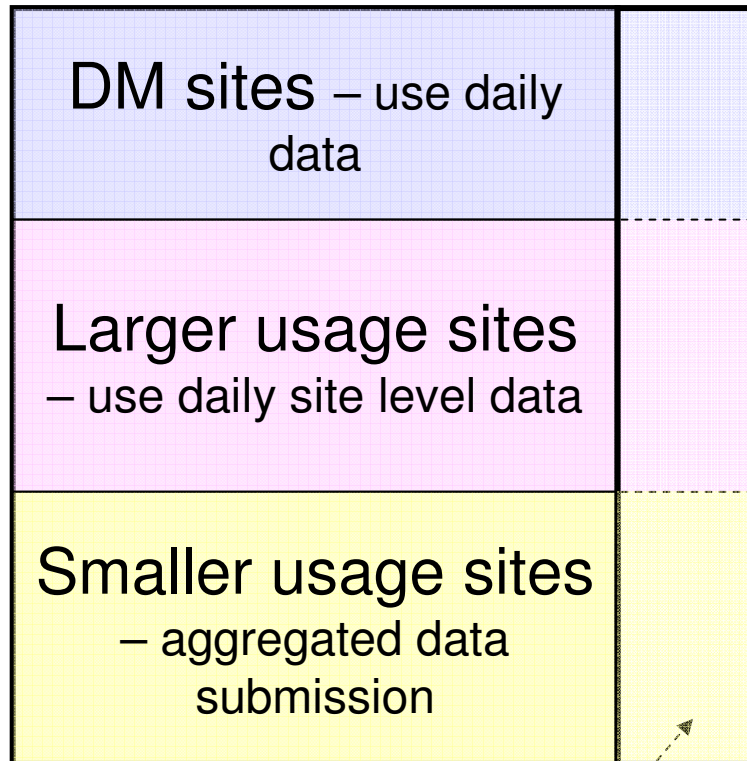
Alternative 1 – Aggregation in Domestic sector



Daily balancing correction to apportion “unaccounted for gas”

- Submission of aggregated daily consumption (volume/energy) for all Domestic sites for a Shipper/Exit Zone combination
 - ✓ Volume of data vastly reduced
 - ✓ Still utilising increased data availability
- Shipper (or their agent) would need estimating processes for missing read days
- Determination of site type from Market Sector Flag (MSF)
- Separate process to submit site-level reads for AQ processes (if required)

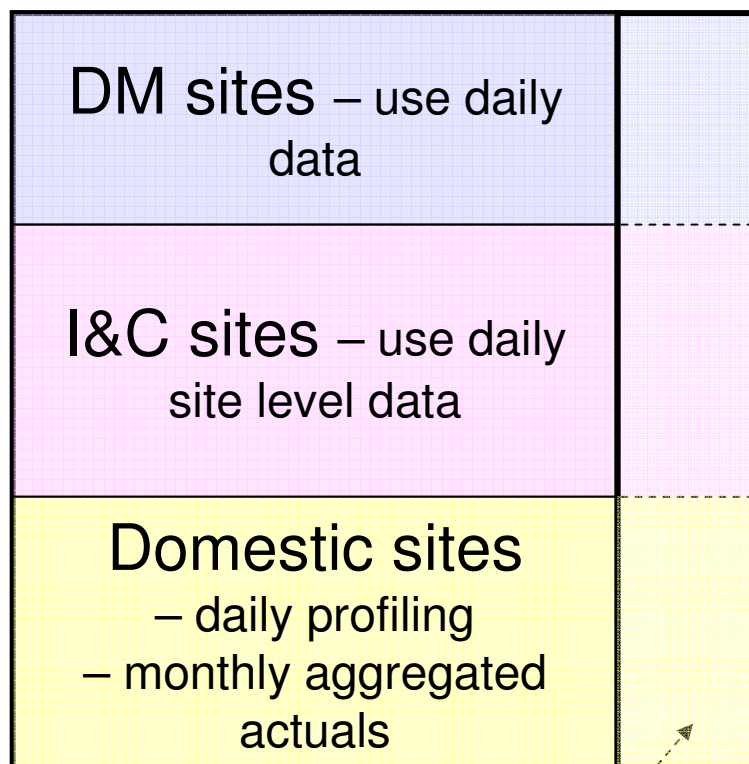
Alternative 1A – Aggregation for Small Sites



Daily balancing correction to apportion “unaccounted for gas”

- Submission of aggregated consumption (volume/energy) for all sites under a threshold for a Shipper/Exit Zone combination
 - ✓ Volume of data vastly reduced
 - ✓ Still utilising increased data availability
- Shipper (or their agent) would need estimating processes for missing read days
- Determination of site treatment based on AQ or similar
- Separate process to submit site-level reads for AQ processes (if required)

Alternative 2 – Daily estimates, monthly aggregated consumption

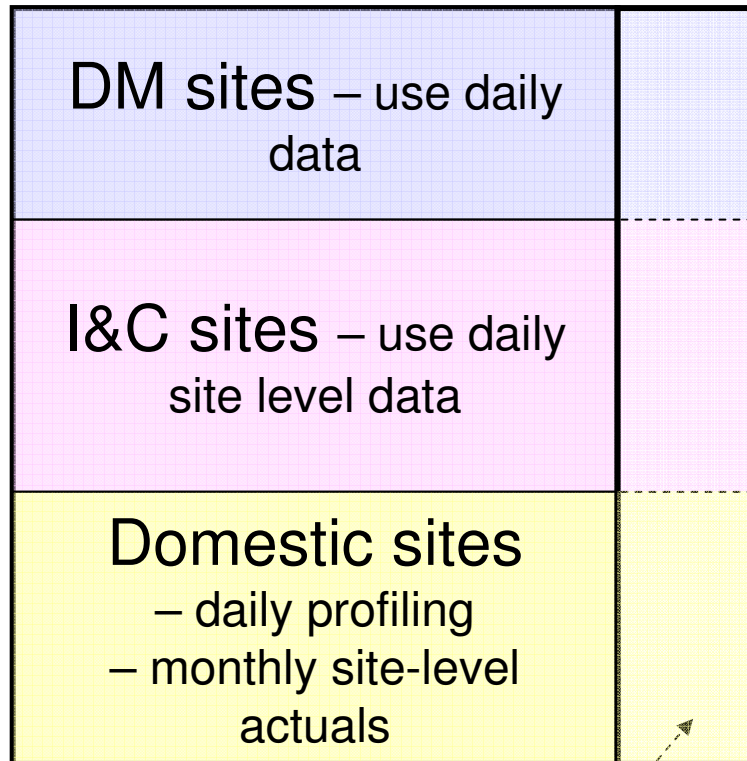


Similar Option 2A differentiates on AQ/usage

Daily balancing correction to apportion “unaccounted for gas”

- Use actual daily consumption for DM and I&C sites
- New daily estimation calculation for Domestic meters, not reliant on scaling factor
 - E.g. use ALP & DAF
 - New Weather Correction Factor based on actual CWV v seasonal normal CWV
- Submission of monthly aggregated consumption (volume/energy) for all Domestic sites for a Shipper/Exit Zone combination
 - ✓ Volume of data vastly reduced
 - ✓ Still utilising increased data availability
- Using actual data for commodity and energy billing

Alternative 3 – Daily estimates, monthly site-level consumption



Similar Option 3A differentiates on AQ/usage

Daily balancing correction to apportion “unaccounted for gas”

- Use actual daily consumption for DM and I&C sites
- New daily estimation calculation for Domestic meters, not reliant on scaling factor
 - E.g. use ALP & DAF
 - New Weather Correction Factor based on actual CWV v seasonal normal CWV
- Submission of total site-level consumption (volume/energy) for each Domestic site at month-end
 - ✓ Actual data used for balancing and billing
 - ✗ Significant data volumes to be processed in a tight window

Alternative Options - Transitional

- As with original proposal, use new estimation technique during transitional phase, e.g.

DM sites – use daily data	
I&C remote sites – use daily site level data	
I&C dumb sites – use daily profiling	
Domestic Smart sites – use daily site level data	
Domestic dumb sites – use daily profiling	

- New daily estimation calculation for dumb meters, not reliant on scaling factor
 - E.g. use ALP & DAF
 - New Weather Correction Factor based on actual CWV v seasonal normal CWV
 - Remote and dumb can be treated alike in calculation of “balancing correction”
- ← Daily balancing correction to apportion “unaccounted for gas”

Summary of Options

<i>Option</i>	<i>Balancing correction required</i>	<i>Segmentation Options</i>	<i>Transition</i>
As discussed: daily actuals for all 21m sites	Required.	Not required	Use improved stand-alone profiling for dumb sites
Alternative 1: DM sites billed on actuals. Some non-DM on daily actuals, some on profiles	Options for application of balancing correction: - Domestic only - Non-DM only - All sites	1 - Segment on MSF (Domestic/I&C) 1A - Segment on usage levels/AQ	Use profiling for larger dumb sites during transition. No transition required for smaller sites
Alternative 2: DM sites billed on actuals. Some non-DM on daily actuals, some on daily profiles with monthly aggregated actuals		2 - Segment on MSF (Domestic/I&C) 2A - Segment on usage levels/AQ	Use profiling for larger dumb sites during transition. Profiling used for smaller dumb sites - either by Shipper or Transporter
Alternative 3: DM sites billed on actuals. Some non-DM on daily actuals, some on profiles with monthly site-level actuals		3 - Segment on MSF (Domestic/I&C) 3A - Segment on usage levels/AQ	Use profiling for larger dumb sites during transition. Profiling used for smaller dumb sites - either by Shipper or Transporter

Treatment of CSEPs

- All the above options need to also address sites on CSEPs
- Smart meter mandate will also cover CSEP sites
- Starting assumption – don't require more granularity of data for CSEPs than for directly connected
- Options for CSEP sites
 - Same level of data submission as for directly connected
 - Submit aggregated daily/monthly data for each CSEP

Evaluation of Options

- Need to understand current issues – root causes
- Ensure issues addressed by selected option
- Decision to change must be supported by Business benefits –
Transporter/Shipper/consumer
- Cost justification required for any change
- Consider impact on other systems e.g. Gemini