

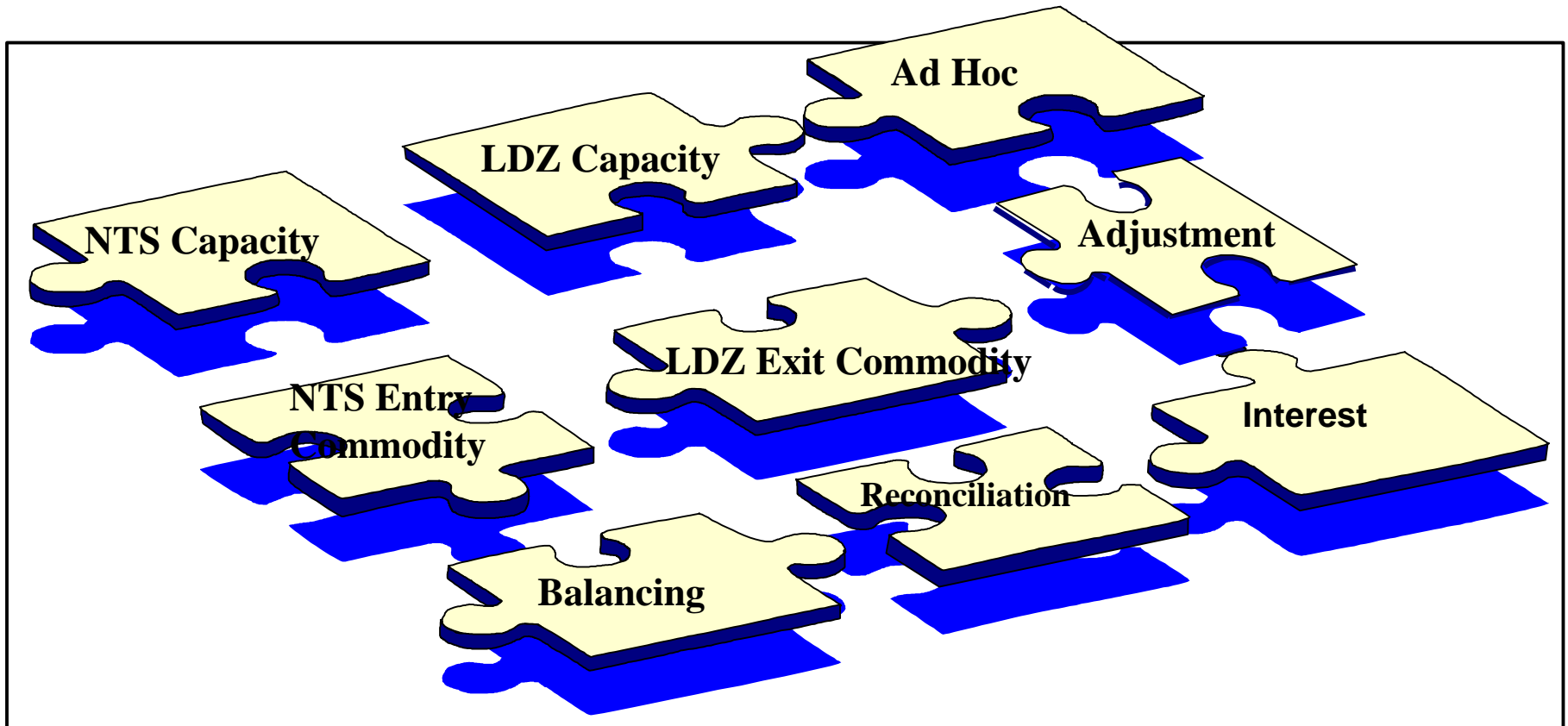
Allocation and Reconciliation Invoicing for NDM Supply Points

Sallyann Blackett

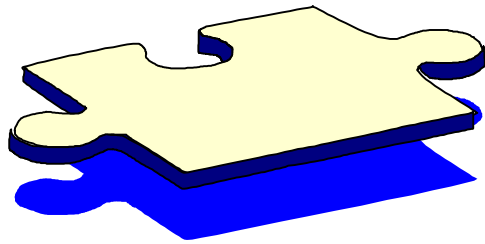
How NDM Supply Points are invoiced?

- To explain what NDM commodity invoicing and reconciliation are
- How the demand attribution formula works
- Where cumulative factors come from
- How reconciliation is calculated
- How Commodity and reconciliation are invoiced

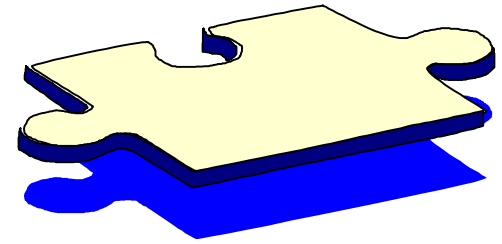
What Invoices are there ?



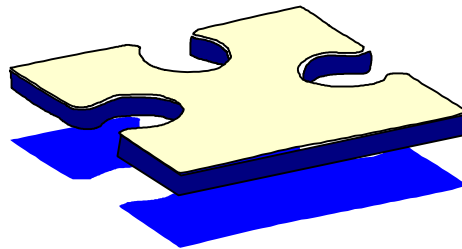
Invoice Types Reconciled



Balancing



Commodity



Reconciliation

How do we know the NDM Outputs for a shipper ?

Measurement for LDZ

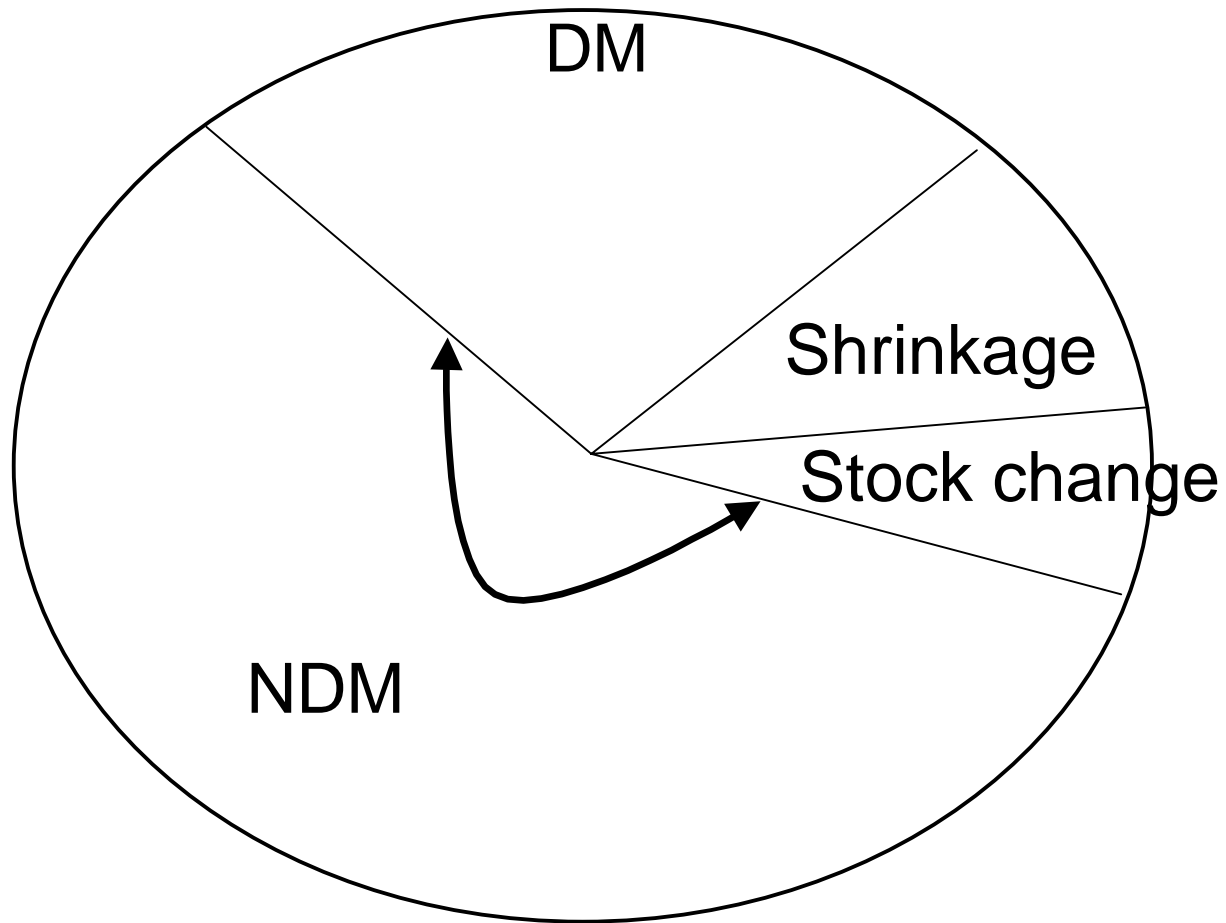
Inputs minus DM outputs,
LDZ Shrinkage and stock
change

= NDM outputs

Allocation to each shipper

Use the
the
Demand attribution
formula

Actual NDM LDZ Outputs



NDM Demand attribution formula

$$(AQ * ALP) / 365 * (1 + (DAF * WCF)) * SF$$

Where do the variables in the demand attribution formula come from ?

AQ

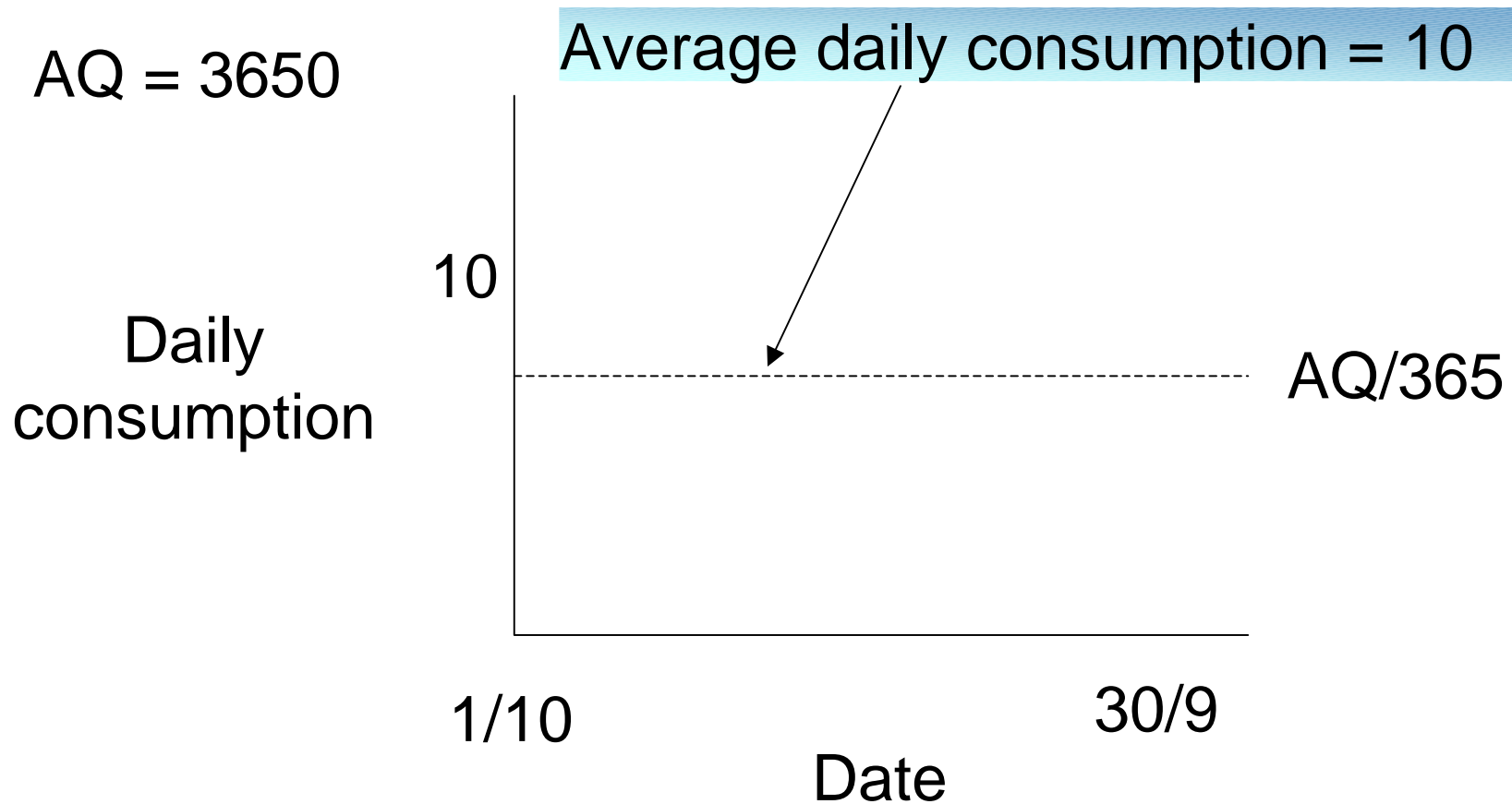
ALP

DAF

WCF

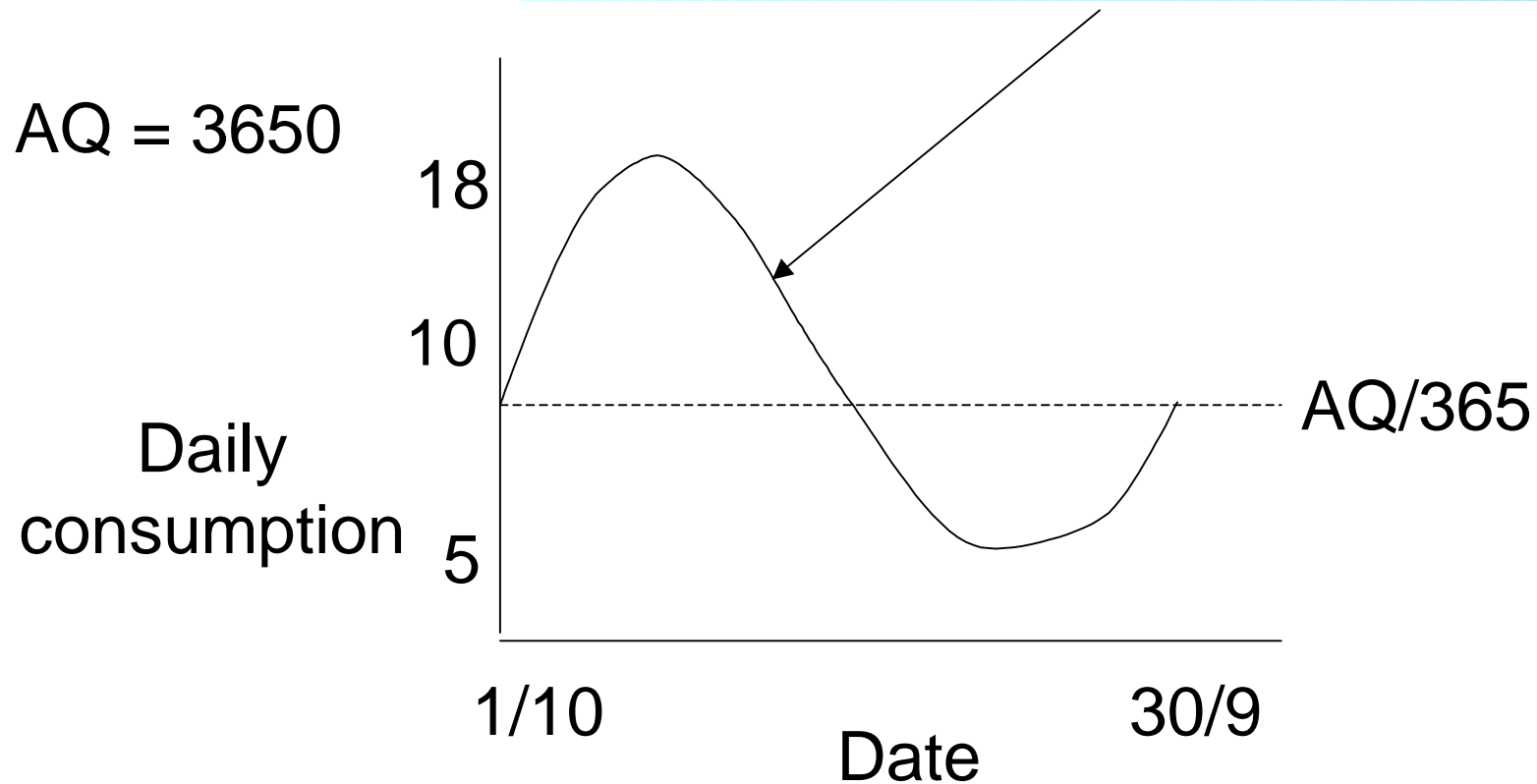
SF

How do we work out what the daily consumption is?



How is the daily consumption varied for time of year?

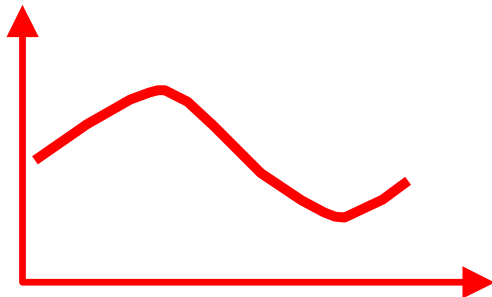
Seasonal normal consumption on a day = ALP x average consumption



NDM Demand attribution formula

$$\left(\text{AQ} * \text{ALP} \right) / 365 * \left(1 + \left(\text{DAF} * \text{WCF} \right) \right) * \text{SF}$$

Seasonal Normal



Seasonal Normal

Consumption varies due to weather – how is this allowed for?

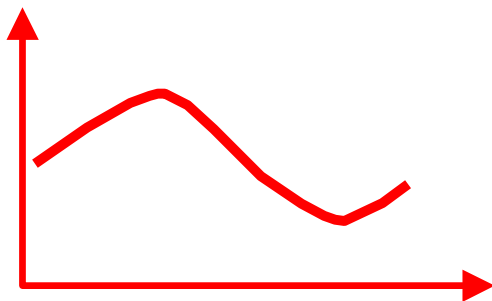
- WCF - Weather correction factor
 - Allows for differences in temperature
- DAF - Daily adjustment factor
 - Allows for different behaviour for changes in temperature

NDM Demand attribution formula

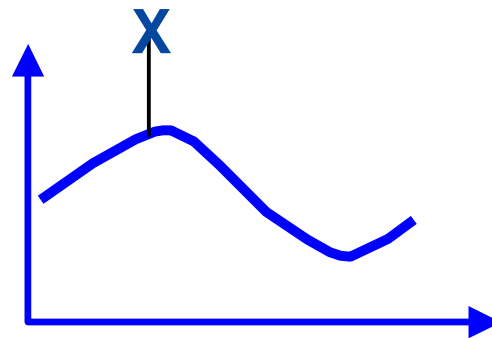
$$(\text{AQ} * \text{ALP}) / 365 * (1 + (\text{DAF} * \text{WCF})) * \text{SF}$$

Seasonal Normal

Weather Correction



Seasonal Normal



Weather Correction

The Energy Factor

$$AQ * \text{ALP}/365 * (1 + (\text{WCF} * \text{DAF}))$$

The red letters together are
the "provisional"
energy factor
(PEF)

$$\text{PEF} * \text{Aggregate AQ} = \text{NDMDt}$$

The actual ENERGY FACTOR includes SF, the "scaling
factor"

Calculating a Scaling Factor

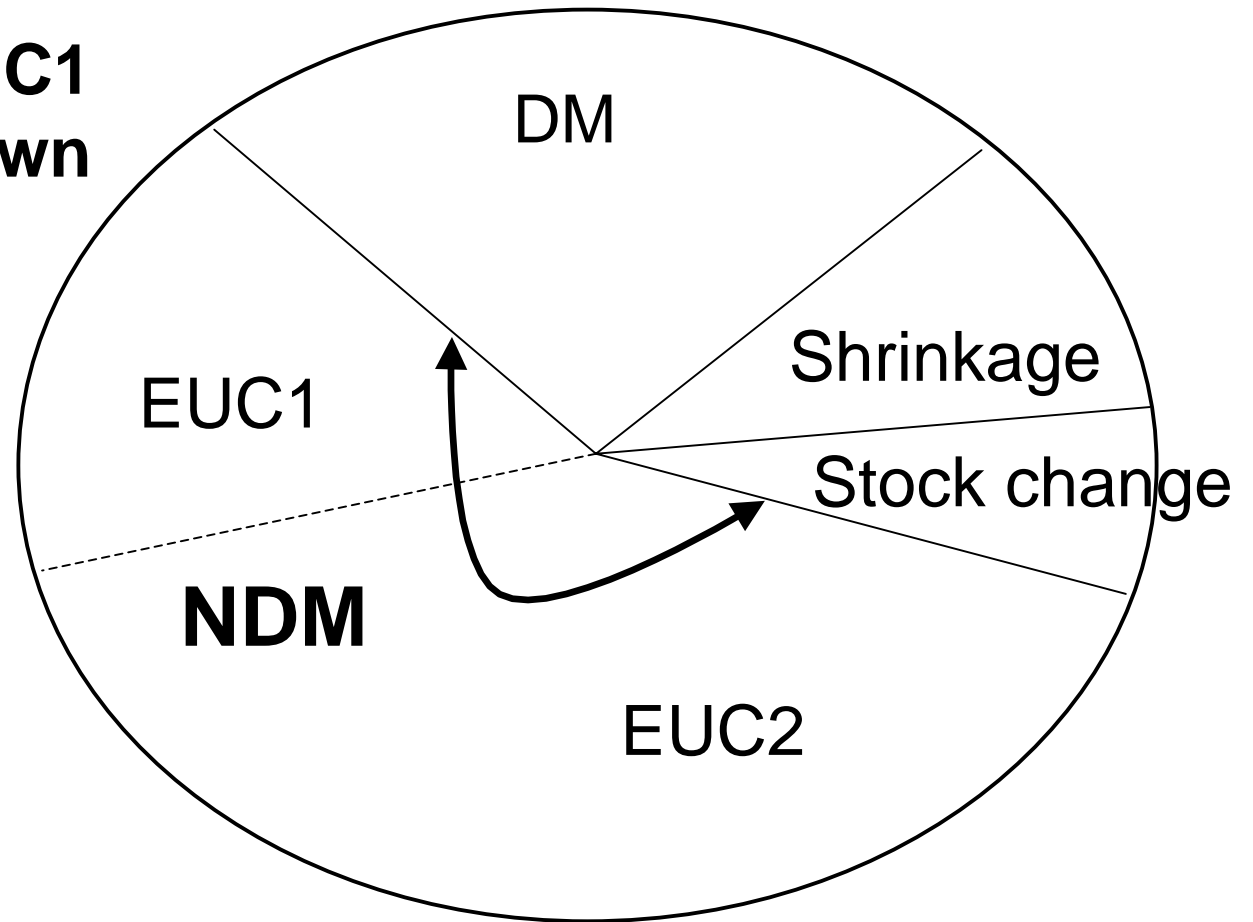
Forecast energy for this LDZ =

$$\mathbf{PEF}_{EUC1} \times \mathbf{AQ}_{EUC1} + \mathbf{PEF}_{EUC2} \times \mathbf{AQ}_{EUC2}$$

The "provisional" energy factor is used at this stage
(excludes SF)

Actual NDM LDZ Outputs

Split between EUC1
and EUC2 unknown



Scaling Factor

Measured (ASDt)

Forecast (NDMDt)

=

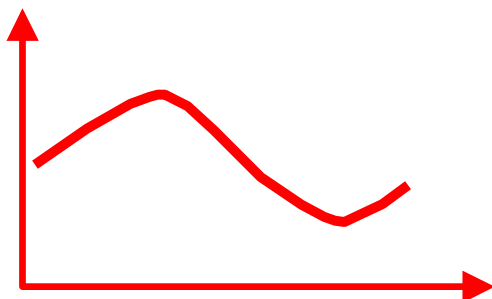
**Scaling
factor
(SF)**

(NWC, H2.5)

NDM Demand attribution formula

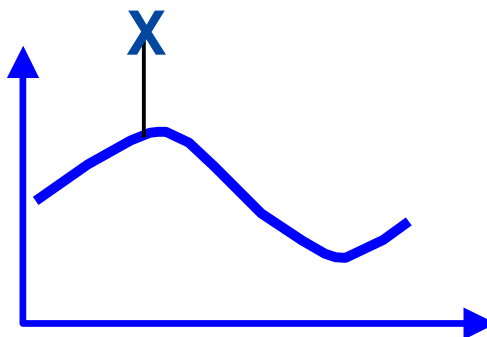
$$(AQ * ALP) / 365 * (1 + (DAF * WCF)) * SF$$

Seasonal Normal



Seasonal Normal

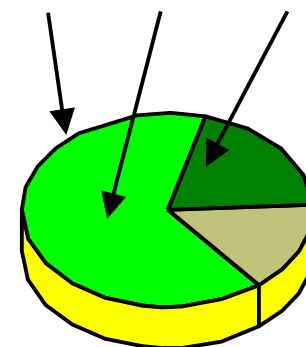
Weather Correction



Weather Correction

LDZ Scaling

LDZ NDM DM
100 75 15



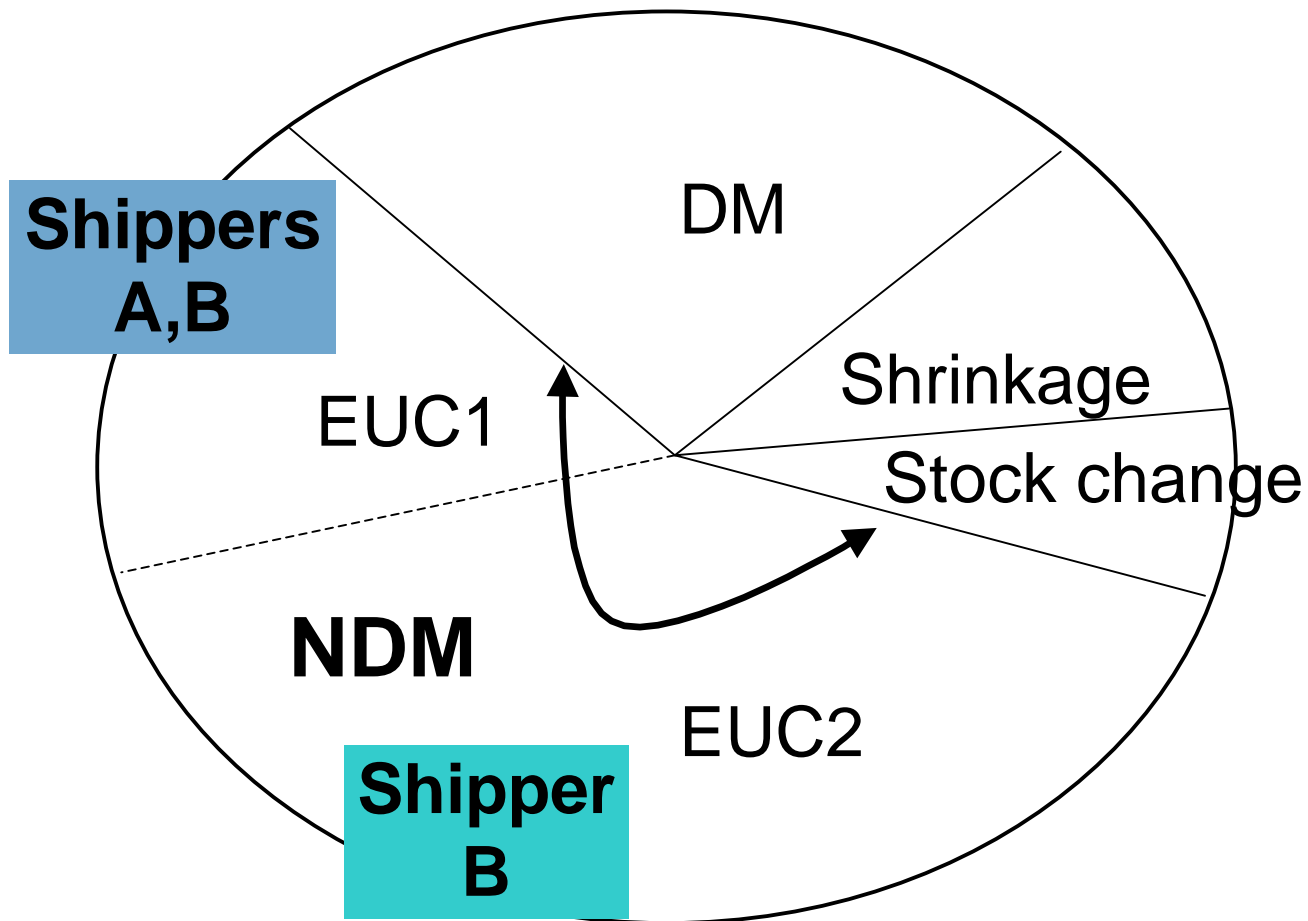
LDZ Scaling

**We know the
ENERGY FACTOR
for each EUC**

$$(ALP/365*(1+WCF*DAF))*SF$$

**This is the same for all supply points and
meter points in the EUC**

Allocating to each shipper



Allocating to each shipper – Commodity charges

The demand allocated to shipper A is:
Customers in EUC1

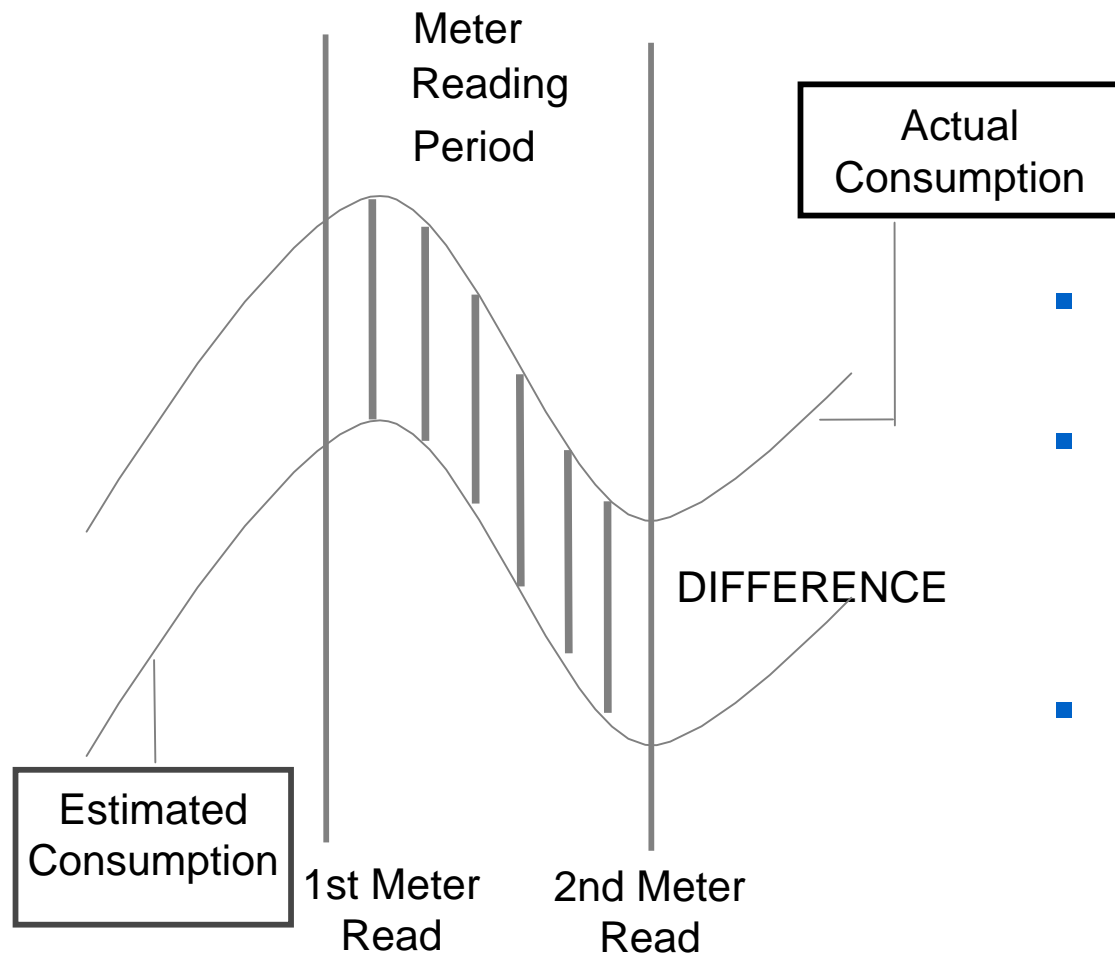
$$EF_{EUC1} \times AQ_{EUC1}$$

The demand allocated to shipper B is:
Customers in EUC1 and EUC2

$$EF_{EUC1} \times AQ_{EUC1} + EF_{EUC2} \times AQ_{EUC2}$$

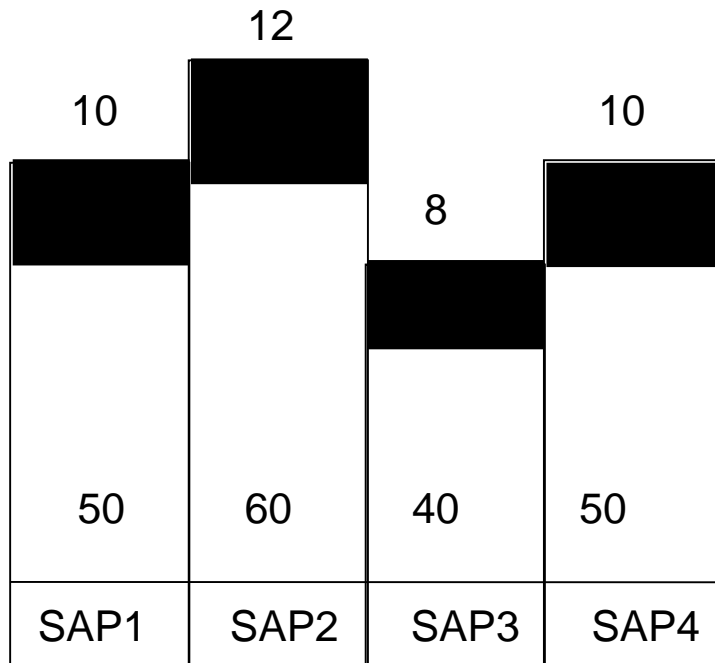
For each EUC and each LDZ, aggregated by Shipper to produce
total invoiced allocation

Reconciliation Principles – Larger Supply Points



- Gas off-taken from meter reads compared to allocated
- Actual consumption, deemed to have been consumed in same profile as allocation model
- Differences are reconciled and charges (debits or credits) made for transportation and cost of gas energy.

Reconciliation Principles

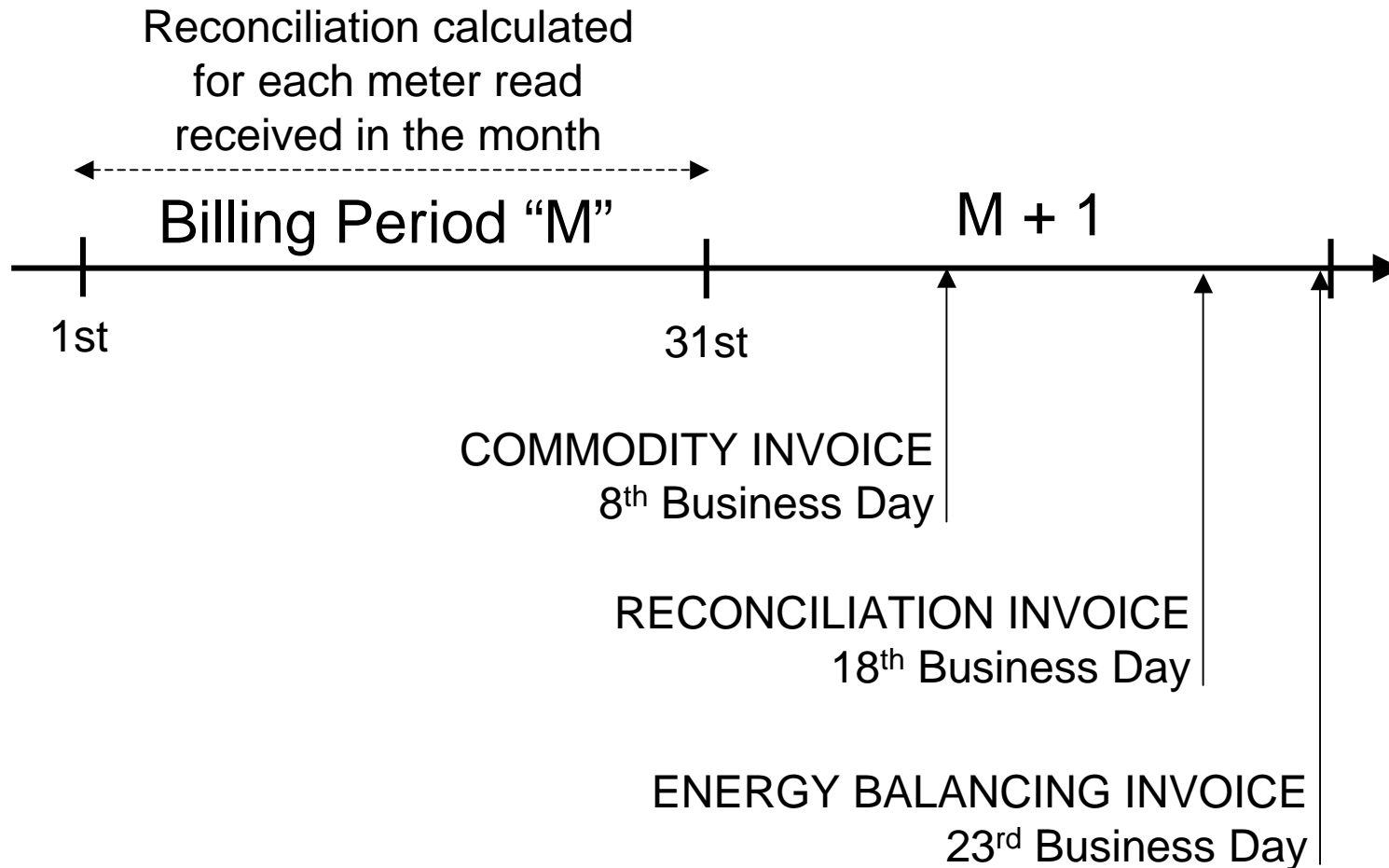


- Energy Variances between actual and allocated = Reconciliation Quantities (RQ)
- Cost of gas variances = Reconciliation clearing values.
 - Calculated by multiplying RQ by daily SAP.

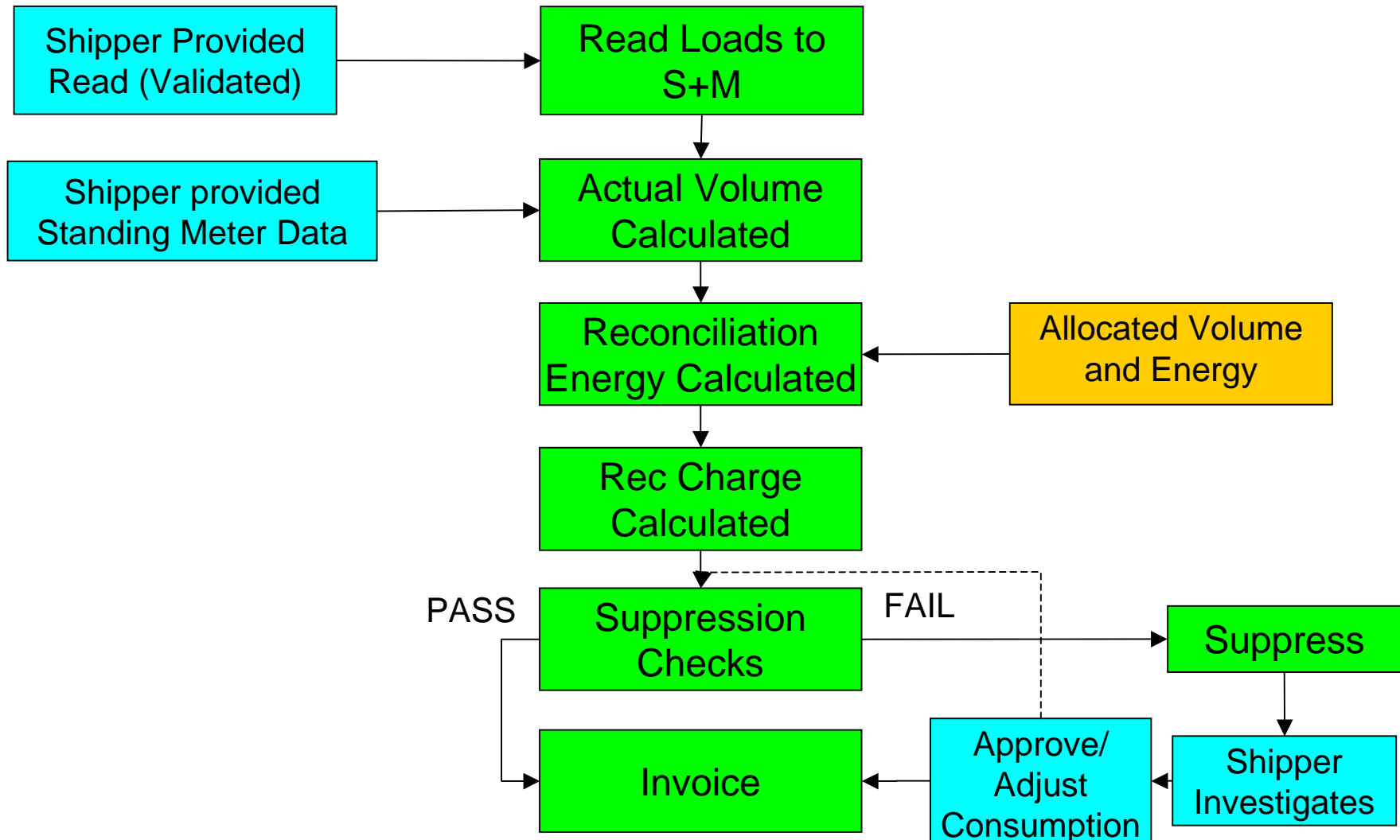
RECONCILIATION
QUANTITY
= 10+12+8+10 = 40

RECONCILIATION CLEARING
VALUE = 10*SAP1 +
12*SAP2+ 8*SAP3 + 10*SAP4

Reconciliation Invoice Timing



NDM Reconciliation Process



RbD Charges

- On reconciliation invoice
- Equal in energy to each large NDM reconciliation
- Charges calculated at SSP rates
- Shared ('smeared') between SSP Shippers based on proportion of aggregate AQ

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- Any questions?