



# **Extraordinary DSG CSS Consequential Change**

19<sup>th</sup> February 2019

# Agenda

- Topics for finalisation:
  - Gemini
- High level design options:
  - MAM Updates
  - Data Enquiry
  - Address Amendments
  - Provision of Last Read
- New Topic for discussion:
  - Reporting
  - File Formats
- Opening Meter Readings
- Customer Design Journey
- Data Cleansing Update



## **Topics for Finalisation**

# Gemini - Change Overview

## CSS Consequential – Gemini

Currently Gemini receives all the Portfolio updates on D-2 from SAP ISU on a daily basis via MDS/AAQ files. As part of this change, Gemini will receive the changes for switching data effective on D day on D-1 evening post CSS gate closure.

## Solution Options

1

Gemini to receive Portfolio updates on D-2 and D-1 for effective D day

2

Gemini to receive Portfolio updates on D-1 for effective D day



# High Level System Solution Impact Assessments



# Overall Assumptions

- For high level design all interactions between CSS Provider and UK Link will be via Marketflow through IX and EFT
- All NTS sites are out of scope for CSS and hence, will continue to operate as is (BAU)
- Batch schedules need to be revisited as part of detail design to accommodate the faster switching timelines
- Shipper File formats impacted by CSS consequential need to be revisited and might require system changes
- The proposed solution options may change due to refinement and further changes to CSSC requirements and considerations during Detail design phase
- Interface complexity between CSS and UK Link has not been considered in the overall impact analysis for these following topic area as these were covered under earlier design options already
- Any changes to switching domain data will be managed via change control process and not an automated update via interface in UK Link system

# Change Overview – MAM Updates

## MAM Details

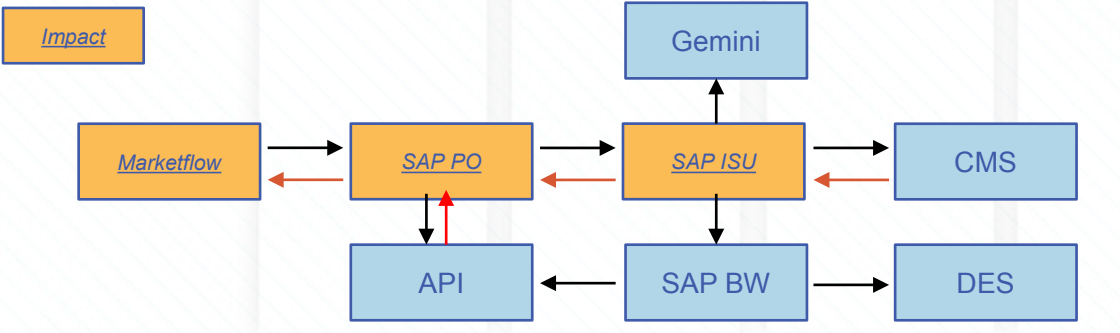
Currently MAM updates are received in UK Link from Shippers via the MAM file and are updated in the system from the requested effective date.

Post CSS implementation, whenever there is a change in MAM applied by the Shipper; the details will be provided by UK Link to CSS via the defined MEM Appointment interface. UK Link will update CSS only once the MAM is effective in UK Link system.

Proposing Shippers can provide MAM files from secured registration status in line with the current process.

MAM updates can also be received via the new settlement details file (shell record) which will be applied along with switch and CSS will be notified of the MAM changes within UK Link.

## Impacted Systems



## Assumptions

- No changes anticipated in term of MAM service in UK Link and DES.
- Batch processing schedule will change.
- Any futuristic MAM updates pending post a switching effective date will be cancelled.
- No changes to existing file formats (MAM and MAS)
- CSS is expected to send a response to UK Link
- In case of unknown MAMs, CSS will not be notified

## Overall Impact

Medium

# Change Overview – Data Enquiry

## DES

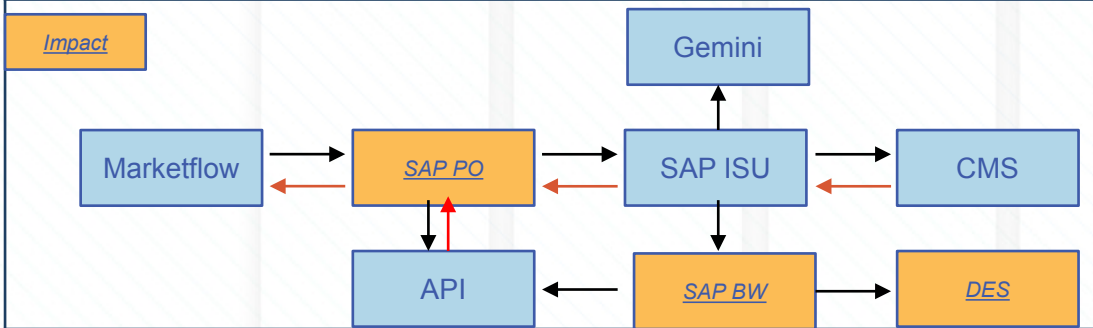
Post CSS implementation; real time update will be received from CSS service provider for below data entities:

1. Switch Details
2. REL Address

The above data will be made available in Data Enquiry System immediately as a “Real Time Service” for the participants based on the Data Permission Matrix.

RMP status will be displayed as a new data item along with the current data entities available on DES for D-1.

## Impacted Systems



## Overall Impact

Medium

## Assumptions

- No transformation or change of data items will be made on existing DES e.g. No MAM to MEM update.
- The current data will not be changed based on the real time feed from CSS.
- Detail Design will define the data permission matrix, data items, change to search method, screen display format and SLA to update the CSS fields in DES.
- Historical data will be maintained; however display in DES will be discussed as part of DD.
- If Welsh REL address is provided by CSS it will be available in DES in addition to the English version.





# Change Overview – Provision of Last Read

## Provision of the Last valid Reading to the Gaining Shipper

Currently the last meter reading is provided to the gaining shipper with the TRF file.

Following the implementation of CSS incoming shippers will continue to require the last valid reading held in UK Link for their gaining meter point to support opening reading validation.

The following options have been considered:

- Gaining shipper following the receipt of validated (**VL**) sync message (Current world equivalent of CFR)
- Gaining and losing shippers(Ceased Responsibility) following receipt of Secured (**SC**) sync (Current world equivalent TRF, MRI & PAC)
- Provision of the lasted reading at both validated and secured

## Solution Options

### Last valid meter readings for gaining shipper

- 1 Send last valid meter reads via CFR equivalent File on receipt of Validated sync
- 2 Send last valid meter reads via TRF & MRI equivalent Files on Gate closure / receipt of Secured sync (D-1 after 17:00 hrs)
- 3 Send last valid meter reads via CFR equivalent file and TRF & MRI equivalent files



**New Topics for Discussion**

# Reporting

- As yet no specific reporting requirements have been identified to support the implementation of CSS, however changes made to the UK Link data model may need to be reflected within existing industry reports.
- A number of high level design assumptions have been made as to the scale of change that is required.
- As we move through our detailed design phase we will be capturing and considering reporting requirements for new and existing reports.



# File Formats

- 32 existing file formats have been identified as being impacted by the implementation of CSS.
- The following file formats have been flagged as candidates for change:
  - GEA, CNF, XDO, TOK, TRF, MSI, MSO, ONJOB, ONUPD, DCF, MDS, AAQ, NMR, NRF, GCC, CFR, DDU, IDL, EDL, EWS, DDS, IQL, EQL, IIL, WAO, WOR, MPE, MPD, SNO, SNR, CSS, CRS & TRS
  - Some of the above may not require a change to the physical file format but may require changes to how the files are handled (e.g. validation rule changes).
  - The final list will be defined as part of detailed design.





## Opening Meter Readings

# Change of Shipper – Day 1

- Change of Shipper Request is not subject to a standstill period
- But will require a Change of Shipper Settlement Reading
- This is therefore a Day 1 Requirement to cater for this



# Existing Business Rules – Reading Window

- Existing treatment of Meter Readings at Transfer (no Class Change)

Reading Class	OPNT Read Date	Read Provision Window Deadline	Replacement Reading
1	D	GFD+1	GFD+5
2	D	GFD+1	GFD+5
3	D	D+10	As needed
4	D+/-5	D+10	As needed

- Note, readings received / required with a read date subsequent to the Opening Meter Reading having been loaded will fulfil the Opening Reading or prompt the estimation of Opening Reading
  - Cyclic Readings from incoming Shipper between D+6 and D+10
  - RGMA Transactions (NB: Received with / without Meter Readings) with an effective date on or after D (received prior to D+10)
  - [Others]

# Previous 0630R Discussion – 06/02/2019

Following a lengthy discussion of all the options, DA concluded the discussion on opening meter reads by summarising the key principles/rules agreed by Workgroup:

- Opening read at D
- An option for a provisional estimate to loaded on D
- Read obtaining window is currently D-5 to D +5. To consider if this window can be reduced to reduce the risk of exceptions. Smart meters should have a smaller window compared to traditional meters so two sets of Business Rules needed for Advanced and Smart meters.
- Consider reducing the read submission window from D+10.
- Any readings from a valid source prior to the read submission date if flagged as an opening meter reading will need to be subject to a validation and tolerance check, the timescales would need to be agreed.
- Subsequent meter readings will be allowed if provided within the agreed window and subject to a validation and tolerance check.
- End of read submission window – any changes as per the current rules.
- Workgroup to consider if the valid source for a meter reading should be from the incoming Shipper only or whether it can be the incoming and subsequent Shipper.
- Principle that the previous Shippers position should not be impacted/changed without prior consent.



# Business Rules – Actions to be considered

- Readings able to be taken prior to D? Current window to obtain a Meter Reading is D-5 to D+5
- Read Submission Window – reduce from D+10
- Generation of a Meter Reading on D – A Provision Opening Meter Reading
  - Purpose?
  - Requirements?
- Can another Shipper's Meter Reading be used to prompt insertion of an outstanding Opening Meter Reading
- Distinct rules for Smart / Remote Equipment

*[Where these outstanding questions are covered in the following slides they are in square brackets]*



# Business Rules – Current Rules

- 0630R minutes state:
  - i. Workgroup participants expressed a general view that the solution should not over complicate the system any more than the current system.
- Complexity is added with proposals, but note the need for an industry solution
  - Read Submission Window reduction from D+10 *probably* not material change, but has +ve effects to limit potential issues
  - Reduction of Opening Meter Reading Window to after D *probably* not material change, but again +ve effects to limit potential issues
  - Any outstanding Opening Meter Reading request is fulfilled when a Valid Meter Reading is loaded
    - Even if this is prior to D+10 (i.e. the end of the Read Submission Window)
    - Even if this is from a Subsequent Shipper (Note: It is less likely today than post CSS that this Meter Reading is from a Subsequent Shipper)
    - *Change to these principles are likely to be complex – particularly loading Meter Readings where OPNT is outstanding*

## Business Rules – Opening Meter Reading - Proposals

- Opening Meter Reading should be taken on D (rather than a Reading taken between D-5 to D+5 being used as if taken on D)
- *[Where a Meter Reading hasn't been loaded from the Incoming Shipper by D, CDSP should generate a 'Provisional Opening Meter Reading']*
  - *[The Provisional Opening Meter Reading will become the Estimate Opening Meter Reading in the absence of receipt by the CDSP of another Meter Reading that would amend it]*
- Candidate Opening Read Window Rule: *[Since a switch is not Secured until 17:00 at D-1, the Opening Meter Reading may be taken from D]*
- Since the Opening Meter Reading should be obtained for D, **the first** Valid Meter Reading submitted *[by the Incoming Shipper]* prior to closing the Read Submission Window shall trigger the Estimate Opening Meter Reading being generated

# Business Rules – Read Submission Window - Proposals

- [A Read Submission Window is needed - this is currently D+10]
  - [Does this remain as D+10, or change?]
  - [Other factors to consider? Smart / AMR indicator?]
- An Incoming Shipper will have a Read Submission Window with which to provide their Opening Meter Reading. The window ends at:
  - A Valid Opening Meter Reading being received
  - A Valid Actual Meter Reading is received for a subsequent Read Date from the Incoming Shipper, at which point the Opening Reading will be derived for D
  - *[A Valid Actual Meter Reading is received for a subsequent Read Date from a subsequent Shipper (within that Shipper's ownership but prior to the closure of the original transfer Read Submission Window)]*
  - A valid transaction is received with an effective date after D that requires a Reading (e.g. RGMA transaction) from the Incoming Shipper, at which point the Opening Reading will be derived for D
  - *[A valid transaction is received with an effective date after D that requires a Reading (e.g. RGMA transaction) from a Subsequent Shipper, at which point the Opening Reading will be derived for D]*
  - Estimated Opening Meter Read being loaded at end of the Read Submission Window
- *[Subsequent Valid Actual Meter Readings will be accepted from the Incoming Shipper, but will not update the outstanding Estimated Opening Meter Reading]*



## Business Rules – Notification of Opening Meter Readings - Proposals

- *[Where a Meter Reading hasn't been loaded from the Incoming Shipper by D, CDSP should provide the 'Provisional Opening Meter Reading' to Incoming and Outgoing Shippers]*
- Once an Opening Meter Reading is loaded this is provided to the Outgoing Shipper and Incoming Shipper
- Where an Opening Meter Reading (not a Provisional Opening Meter Reading) has been loaded this should be amended by an Agreed Meter Reading – as currently

# Business Rules – Different Treatment for Smart / AMR – Discussion Points

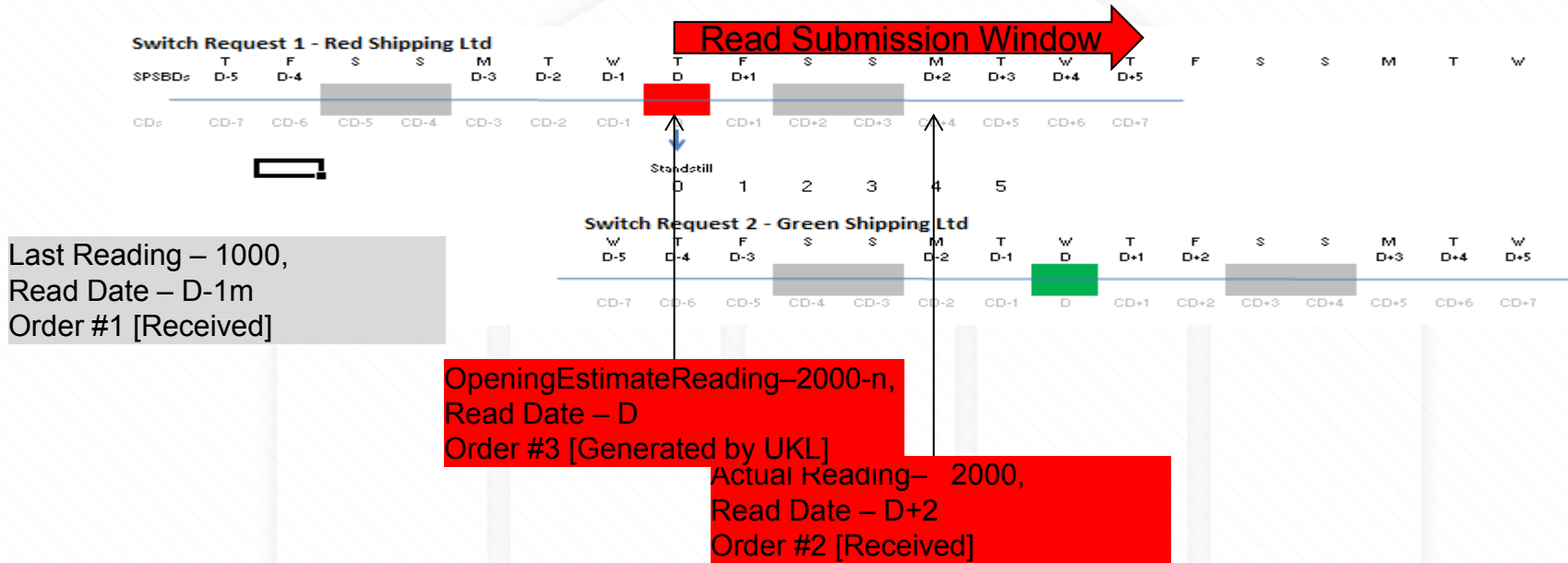
- *Discussion about creation of distinct rules for Supply Meter Points with Remote Capability / Traditional Metering*
  - *Benefits that the expectation can be set that Smart / AMR Equipment should be the norm, therefore Actual Meter Readings should be available for D – provided that the equipment is accessible to the Incoming Shipper*
  - *Also, that the Read Submission Window should be shorter (i.e. from D+10 to D+5)*
    - *Shorter Read Submission Window should reduce risk of overlapping Opening Meter Reading provision*
- *How is it determined that the Remote / Traditional Metering rules are applied?*
  - *DCC Service Flag? Or Meter Mechanism? (noting that an S1 Smart Meter may revert to Traditional post Switch)*
  - *AMR Flag? (noting that an ASP may not provide service to Incoming Shipper)*
- *Is Faster Switching the reason for this? Is this a Consequential Change?*
  - *Note: CP 16/351 decision letter*
- *Adds complexity – e.g. rules around changes to information that denotes different treatment*



# Business Rules – Reading Estimation

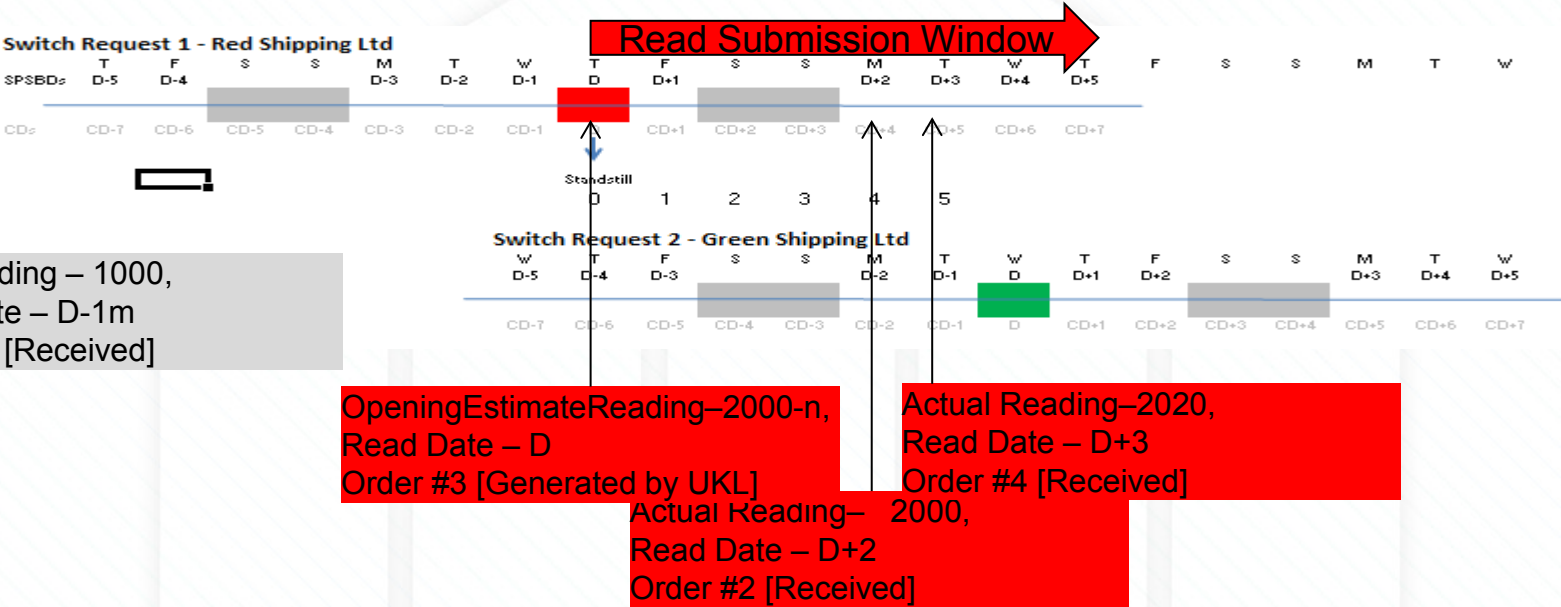
- Class 1 and 2 are not impacted.
  - Class 3 and 4 impacted – since it is expected that there is [increased] commonality between Opening Meter Reading principles for these Classes.
  - The following options were presented to DSG CSS:
    - Option 1 – Opening Reading loaded for D date, and Provisional Estimate loaded on D (where an actual is not received)
    - Option 2, only readings provided by the Incoming Shipper whose Opening Reading is yet to be fulfilled would be considered to derive the Opening Reading (and the last Meter Reading from the Outgoing Shipper's period).
    - Option 3, any Readings in UKL, including those provided by a subsequent Shipper would be considered for the end read with which to derive the Opening Reading for any unfulfilled Opening Reading.
- And a further option has been subsequently identified:
- Option 4 – Shippers do not have an Opening Reading Window – the Opening Reading must be provided for D – where a Shipper fails to get an Actual for D, an estimate may be generated by the Shipper. (disregarded by 0630R 06/02/2019)

# Example Timelines – Happy Path



- [Example Read Submission Window = D+5]
- [Provisional Opening Meter Reading to be loaded for D (not shown)]
- Red obtains Valid Actual Reading prior to closure of Read Submission Window
- UKL generates Estimate Opening Meter Reading for D

# Example Timelines – Later Actual (Same Shipper)



Last Reading – 1000,  
 Read Date – D-1m  
 Order #1 [Received]

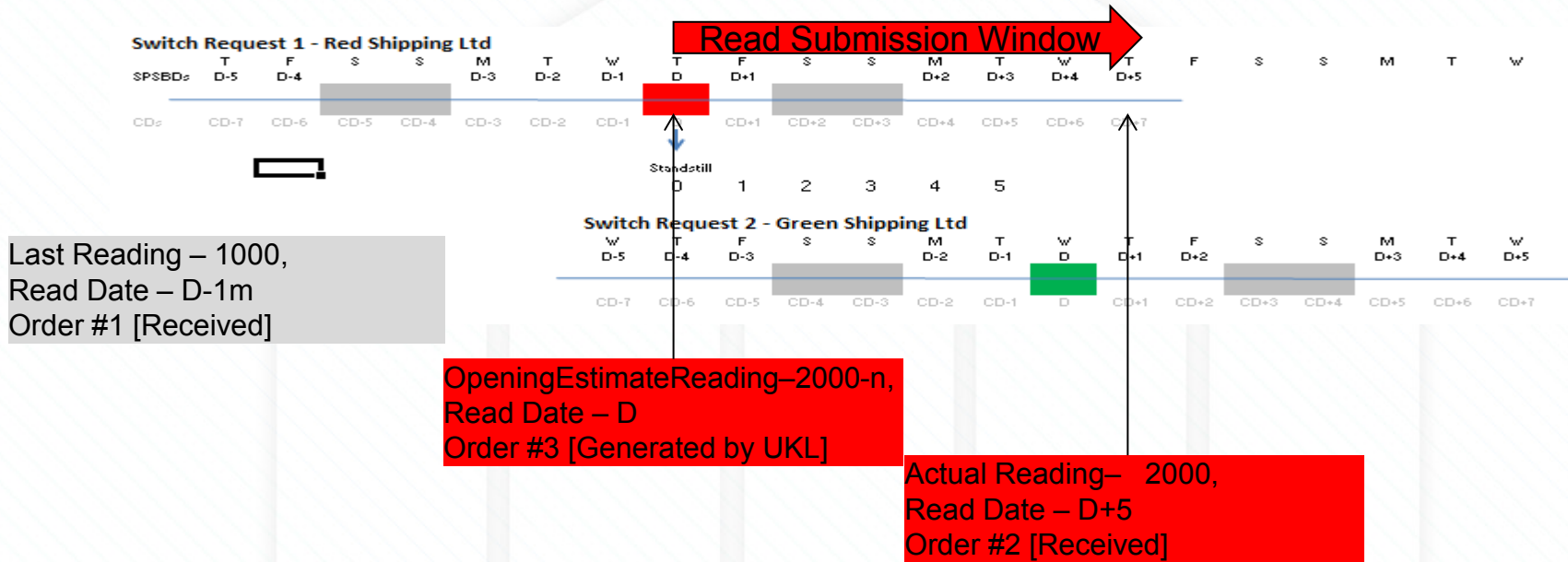
Opening Estimate Reading – 2000-n,  
 Read Date – D  
 Order #3 [Generated by UKL]

Actual Reading – 2020,  
 Read Date – D+3  
 Order #4 [Received]

Actual Reading – 2000,  
 Read Date – D+2  
 Order #2 [Received]

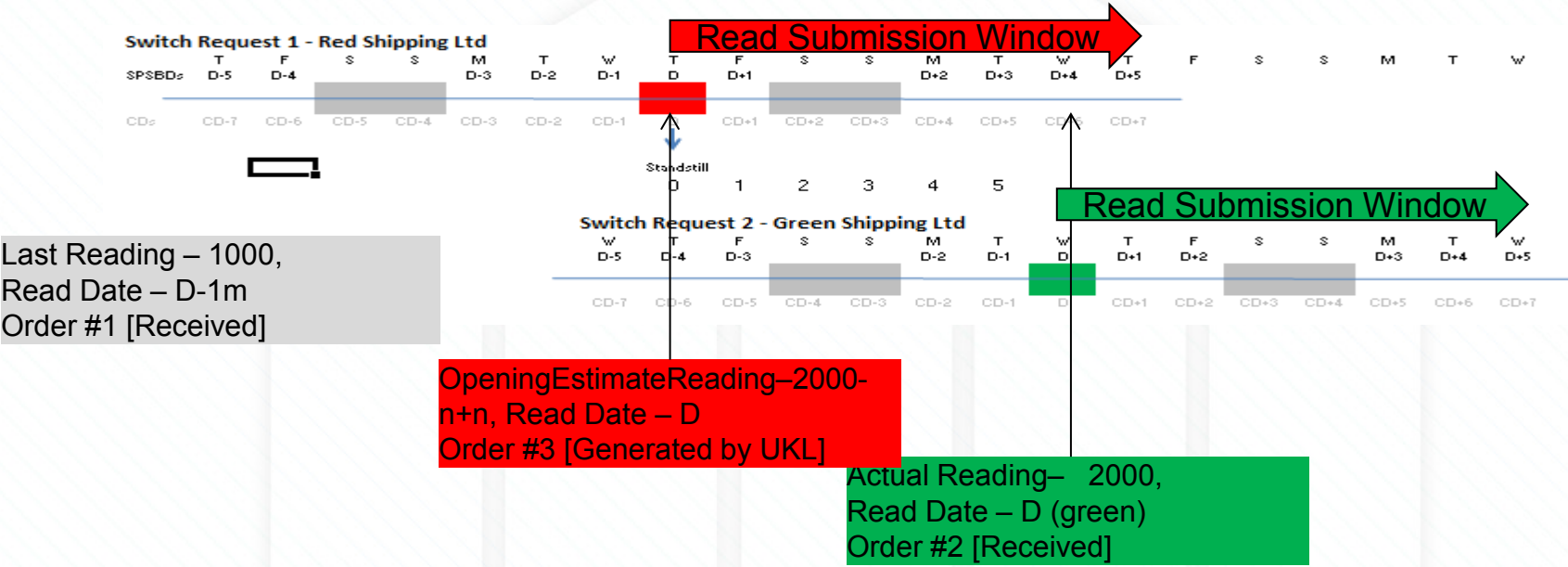
- 0630R preferred that any Reading prior to RSW end should be considered to fulfil OPNT – why?
  - If this is a challenge to the OPNT, should this be explicit?

# Example Timelines – Actual when Superseded Shipper



- Red obtains Valid Actual Reading after Subsequent Shipper Confirmation Effective Date (but still in Read Submission Window)
- UKL generates Estimate Opening Meter Reading for D?
- And records as 'Inactive' D+5 Actual?

# Example Timelines – Actual (Subsequent Shipper)



- Actual provided by Green prior to end of Red RSW, wait until end of RSW to load Red D Estimate?
- If no Actual by Red do we use Green's Reading - e.g. Prorate? Or Estimate from Last Reading?