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# Losses Working Group

## Friday 23 March 2012

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# Data cleansing decision and next steps

Tim Aldridge

# Outline

- The decisions
- Tests and principles
- Application process
- Next steps
- Further questions

# The decisions

Following extensive engagement and analysis the Authority reached the following decisions:

- All licensees given the opportunity to apply for restatement
- Licensees must demonstrate abnormal activity affecting 2009-10 data
- The SP methodology is to be used
- Statistical tests and guiding principles used alongside SP methodology
- Those who have already submitted applications will need to resubmit according to SP methodology and additional tests and principles

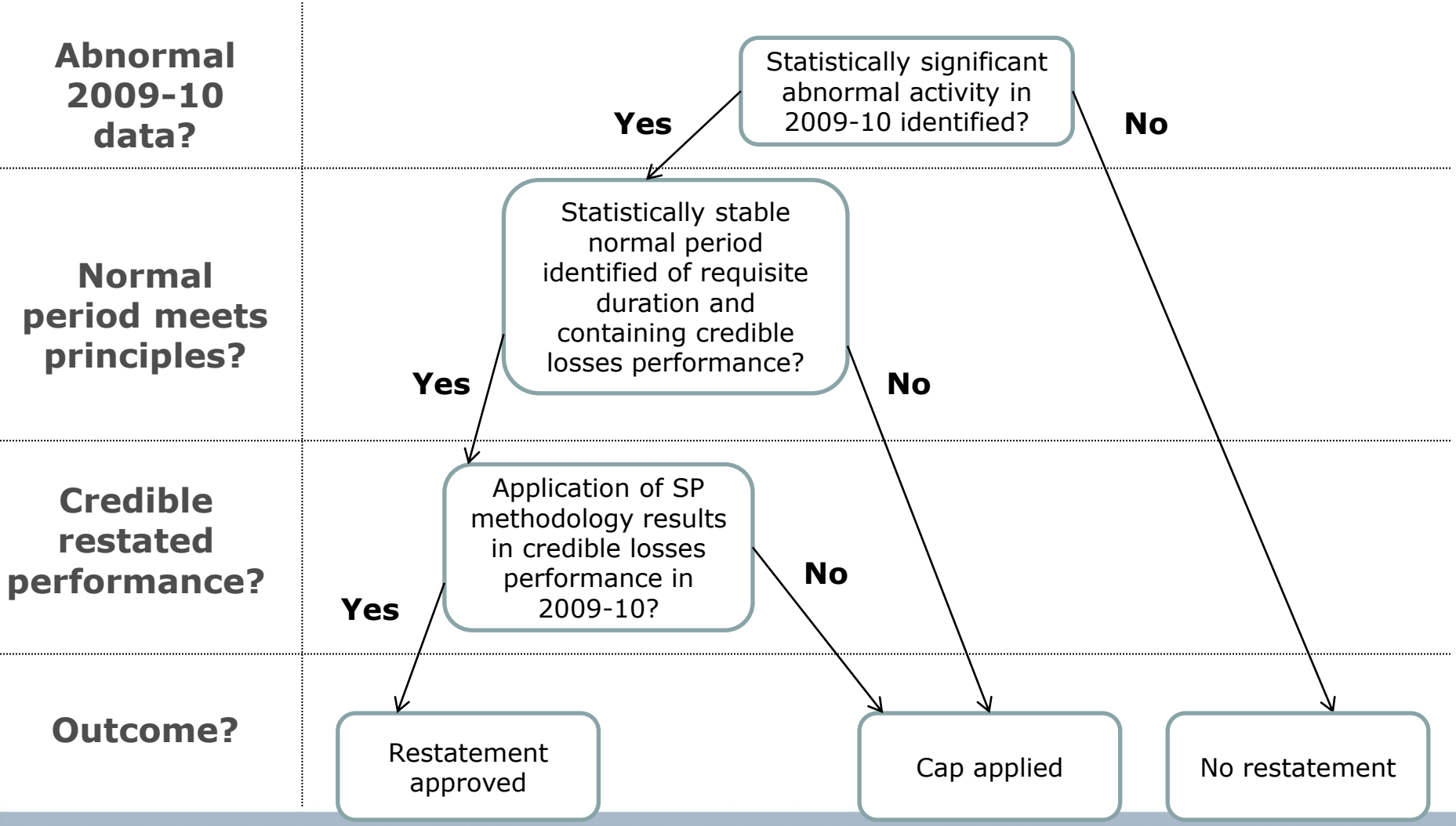
- Decisions on closing out DPCR4 and targets for DPCR5 deferred to cap & collar consultation

# Tests and principles

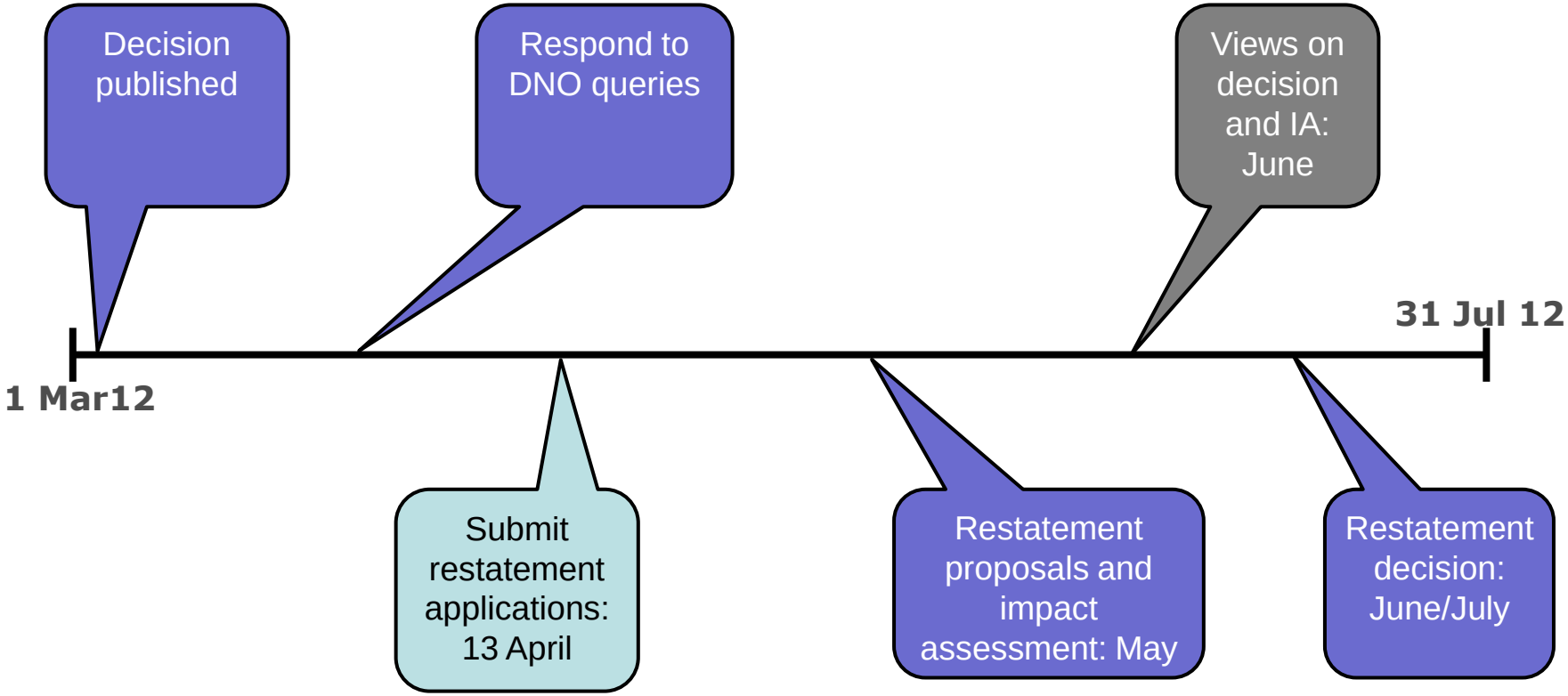
- Statistical tests
  - Identifying abnormal activity in 2009-10
  - Identifying a 'normal' period during DPCR4

- Guiding principles
  - Restatement of 2009-10 data only
  - Normal period
    - During DPCR4
    - At least two years
    - Credible losses performance
  - Restatement position justifiable

# The application process



# Next steps




DNO action | Ofgem action | Stakeholder action

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# Cap & Collar

Stephen Perry

# Background and problem

- The **interaction adjustment** is currently part of the DPCR4 LRRM. The interaction adjustment claws back any reward or penalty that would automatically be incurred in DPCR5, based on a DNO maintaining 2009-10 performance. This ensures that no DNOs are rewarded twice for the same performance.

- The DPCR5 **cap and collar** limits the incentive amount a DNO can receive during DPCR5, providing a proportionate incentive to manage losses and protecting consumers from volatility of charges.

- If the interaction adjustment claws back more reward/penalty than the DNO can incur during DPCR5 (due to the restrictions of the cap/collar), then the DNO will be unable to break even and will incur **revenue loss/gain**.

- Even if the amount that the LRRM interaction adjustment claws back does not exceed the cap/collar, then the restrictions of the cap/collar create an asymmetrical revenue exposure during DPCR5. This means that some DNOs might have **little or no incentive to improve performance during DPCR5.**

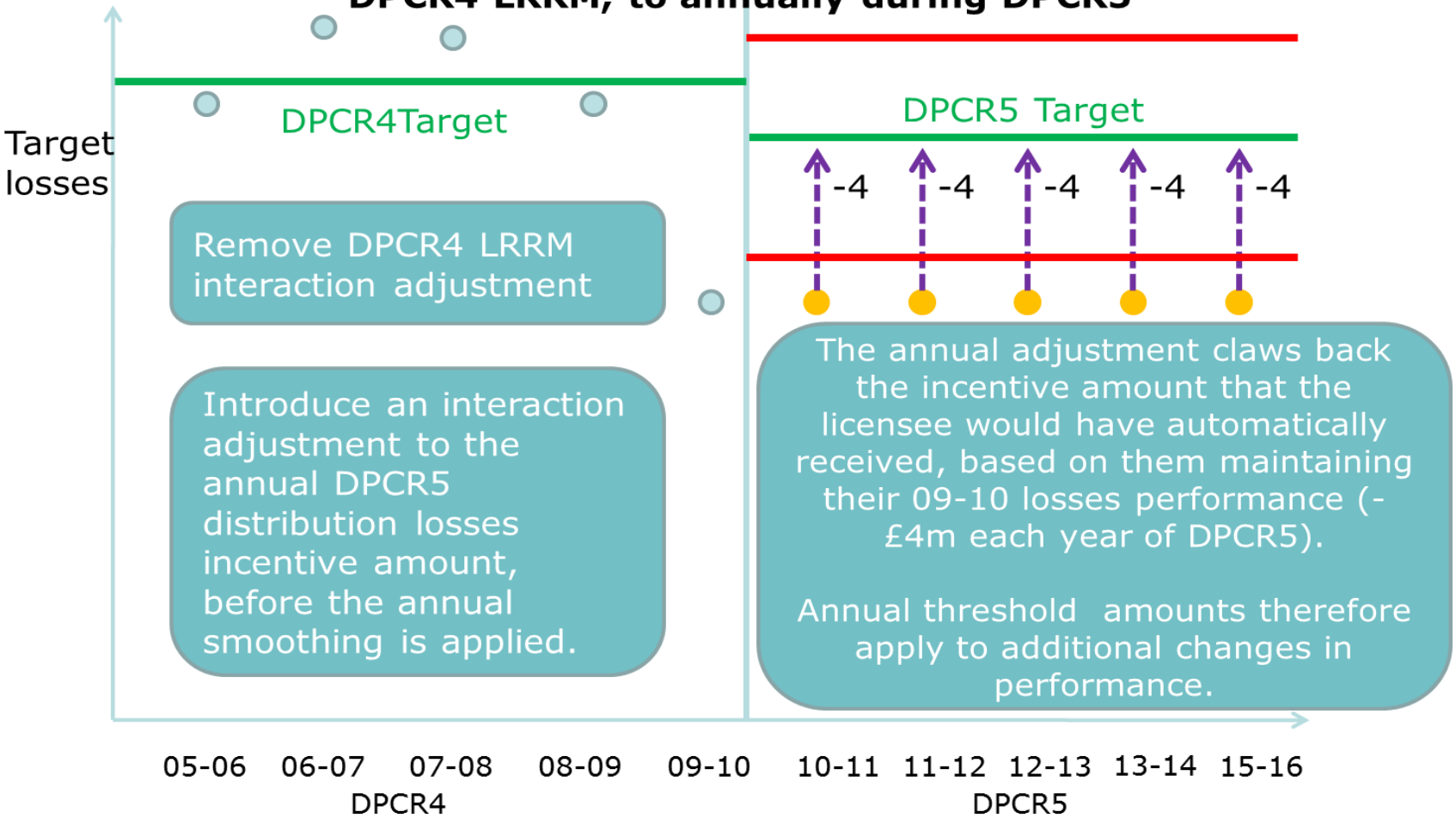
# Consultation and Options

- We will issue a consultation shortly on a range of options to manage the relationship between the interaction adjustment and cap and collar.

- The options that we are currently considering:

1. Remove the interaction adjustment from the DPCR4 LRRM and introduce an annual interaction adjustment during DPCR5.
2. Set 2009-10 performance as the DPCR5 target.
3. Set 2010-11 performance as the DPCR5 target
4. Introduce a cap/collar to the LRRM interaction amount.
5. Change the DPCR5 cap/collar amounts.

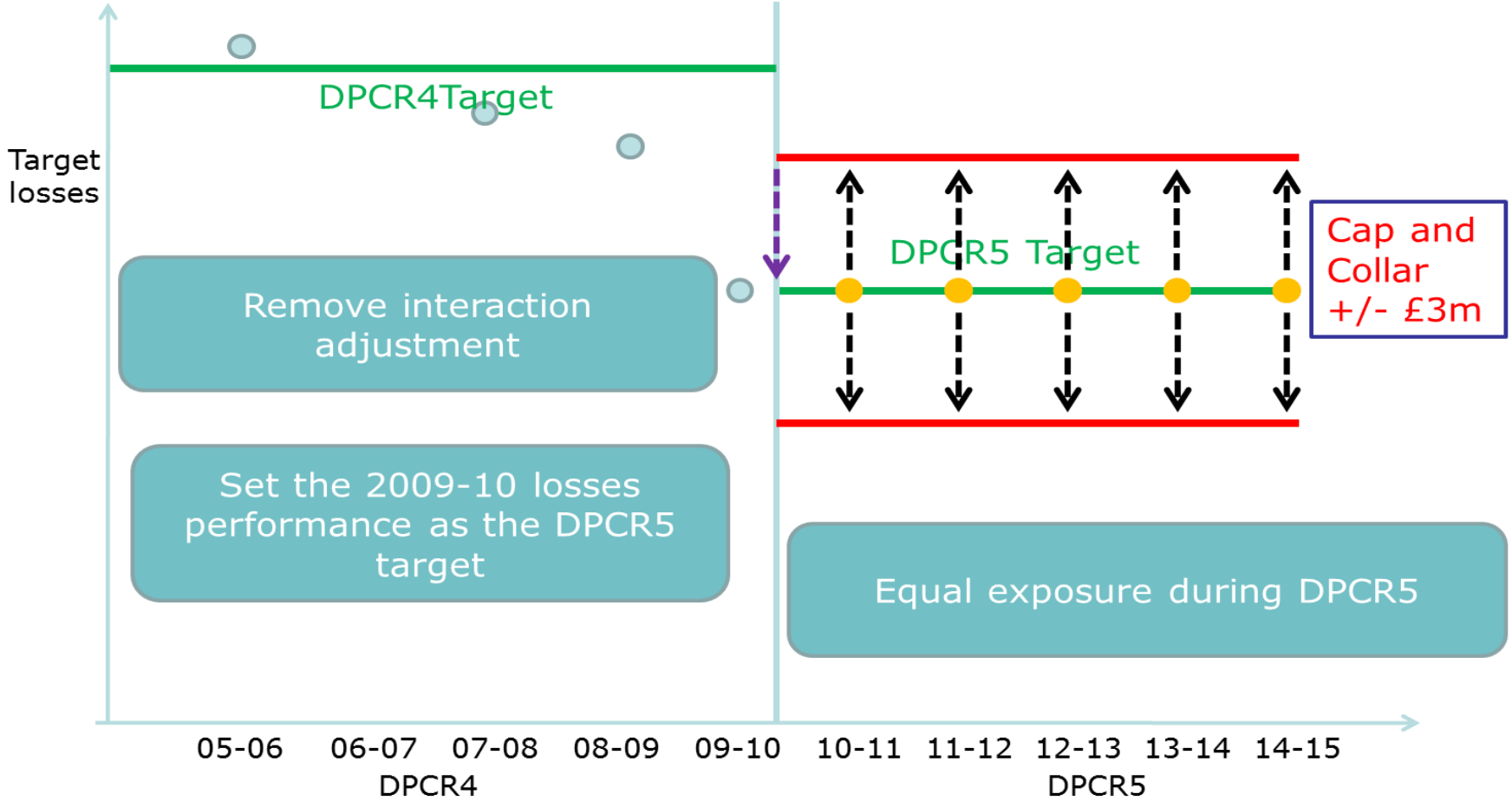
## Option 1 – Move the interaction adjustment from the DPCR4 LRRM, to annually during DPCR5



# Option 1 – Move the interaction adjustment from the LRRM to annually during DPCR5

| Strengths | Weaknesses |
|---|---|
| There is no opportunity for DNO revenue loss or gain as a result of the conflict | This solution would need to be implemented before we can issue a direction on the value of the PPL term. |
| This option would spread the impact of the interaction adjustment over five years, rather than two years, thus reducing volatility in DUoS charges. | This could alter the DNOs' forecasted allowed revenue for 2013-14 and 2014-15, as the PPL amount would be spread over five years rather than two years. |
| All DNOs would have an equal incentive to improve losses performance during DPCR5. | There could be a discrepancy between DNOs' reported performance against the DPCR5 ALP and the financial incentive amount that the DNO received. |

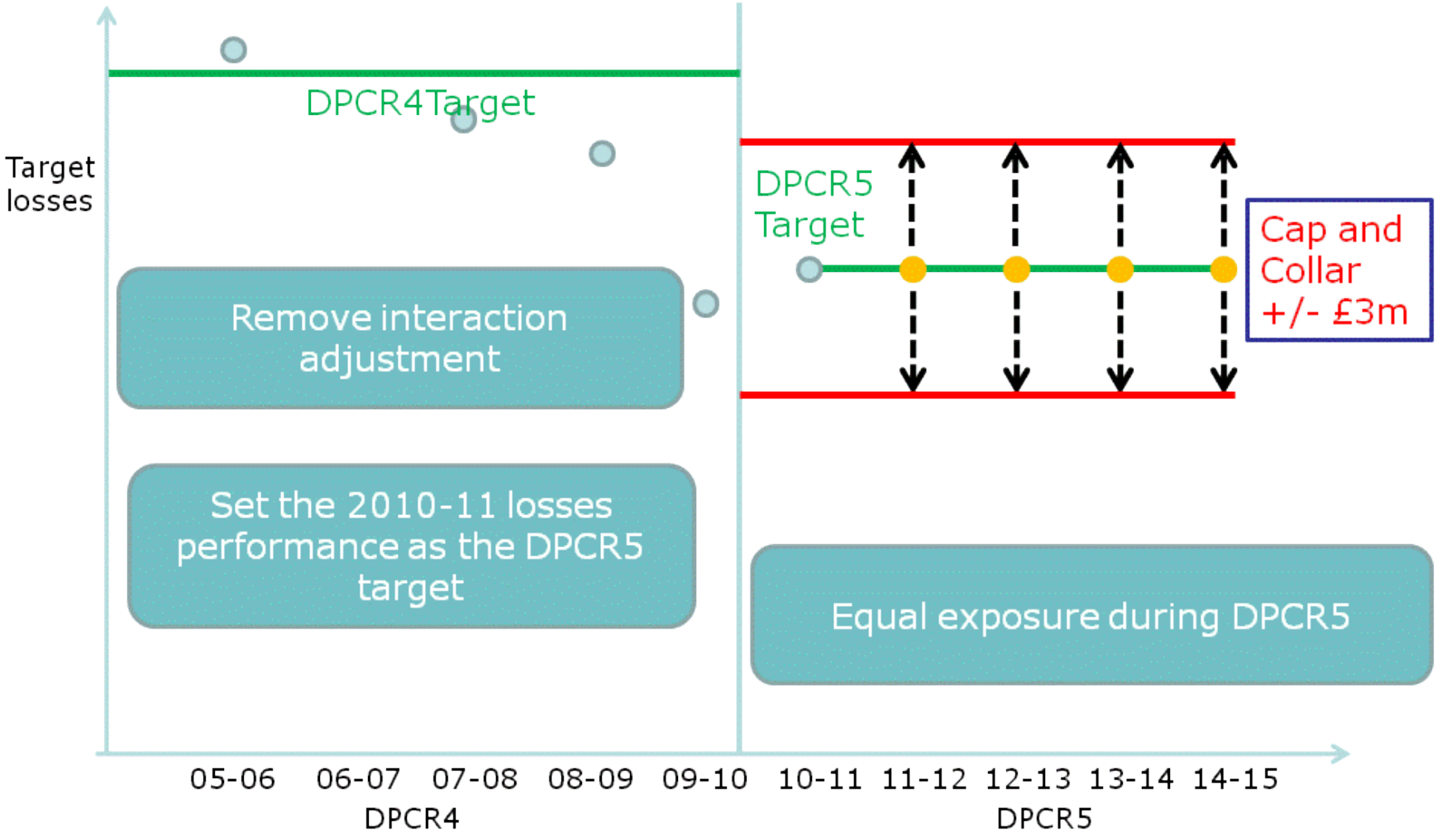
## Option 2 – set the 2009-10 performance as the formal DPCR5 target



# Option 2 – Set 2009-10 data as the formal DPCR5 target

| Strengths | Weaknesses |
|---|---|
| No opportunity for revenue loss or gain as a result of this interaction. | The DPCR5 target only takes into account losses in one year (2009-10). |
| All DNOs would have an equal incentiv to improve losses performance during DPCR5. | This process would need to be complete before we issue a direction on the value of the PPL or ALP. |
| This option would effectively spread the impact of the interaction adjustment over five years, rather than two years. | This could alter the DNOs' forecasted 2013-14 and 2014-15 PPL amount, thus altering the DNOs' forecasted allowed revenue. |

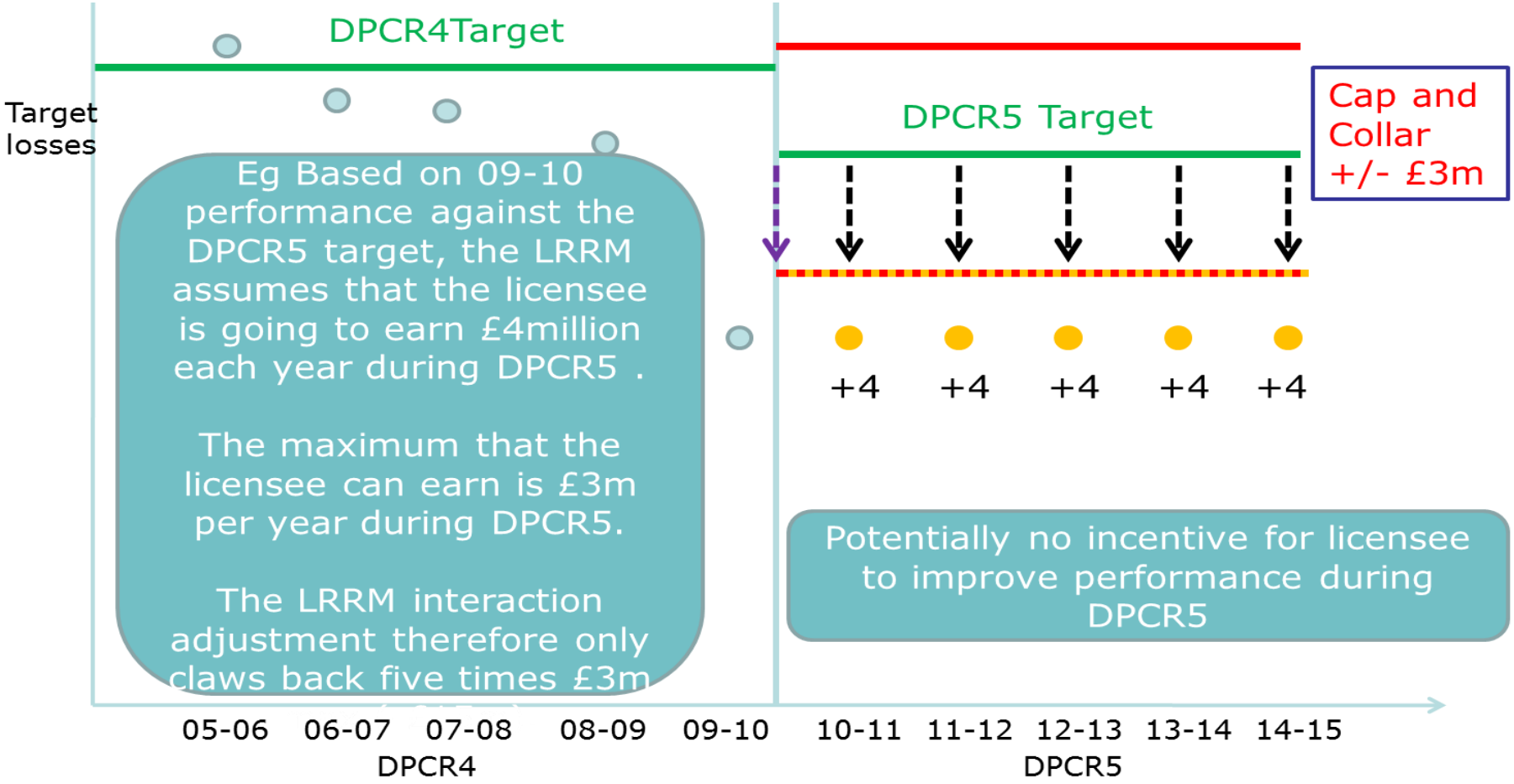
# Option 3 – set the 2010-11 performance as the formal DPCR5 target



# Option 3 – set 2010-11 performance as the DPCR5 target

| Strengths | Weaknesses |
|---|---|
| No opportunity for revenue loss or gain as a result of the conflict. | The DPCR5 target only takes into account losses in one year (2010-11). |
| All DNOs would equal incentive to improve losses performance during the final four years of DPCR5. | This implementation of this option would need to be complete before we issue a direction on the value of the PPL or ALP. |
| Setting the target during DPCR5 allows a longer lag beyond the abnormal data cleansing activity known to have affected 2009-10 data. | This could alter the DNOs' forecasted 2013-14 and 2014-15 PPL amount. |
| This option would effectively spread the impact of the interaction adjustment over four years, rather than two years. | The losses mechanism is effectively switched off for 2010-11, removing any rewards/penalties due to changes in performance from 2009-10. |

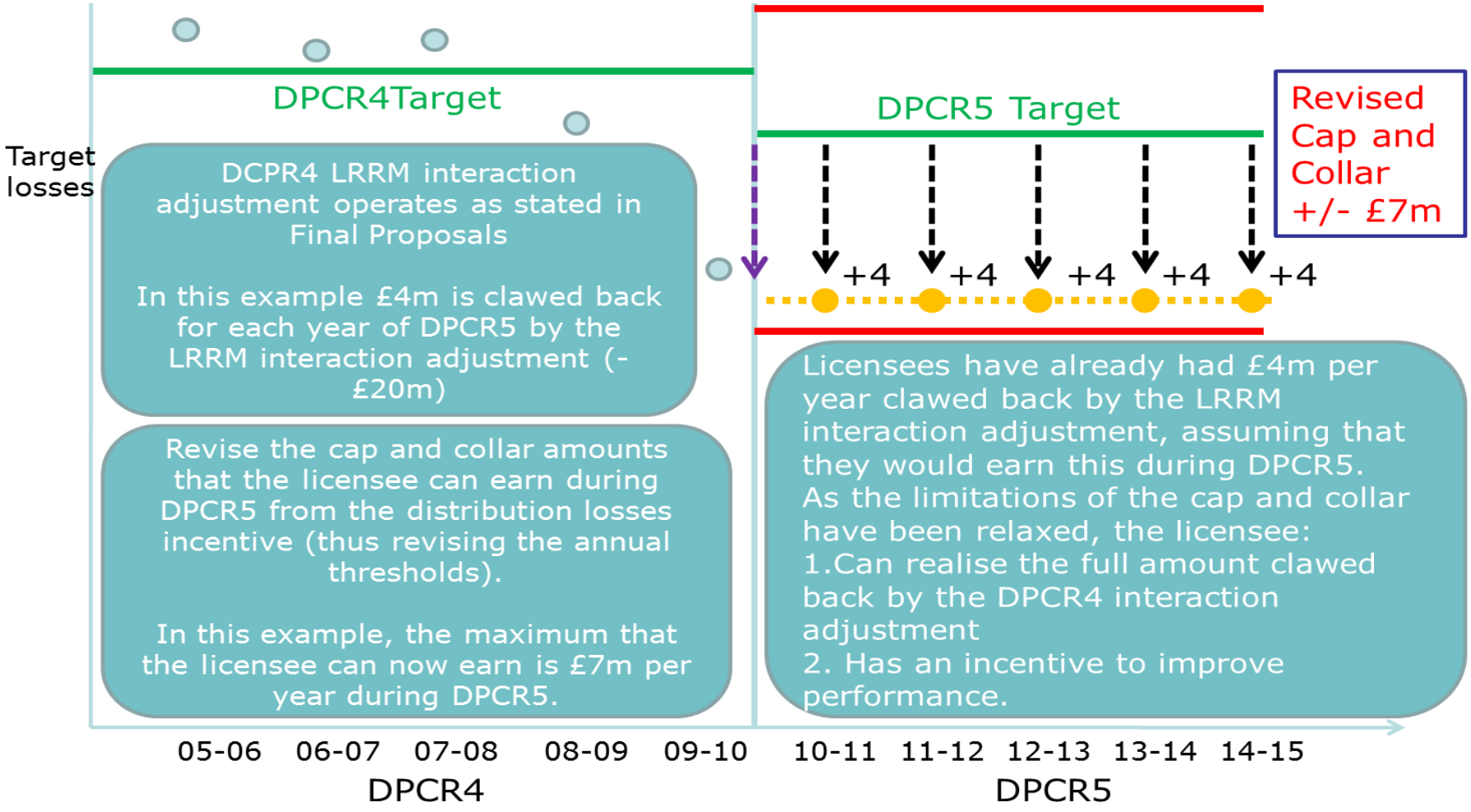
# Option 4 – Introduce a cap and collar to the LRRM interaction adjustment



# Option 4 – Install a cap and collar on the maximum LRRM interaction adjustment payment

| Strengths | Weaknesses |
|---|---|
| No opportunity for DNO revenue loss or gain from the interaction adjustment. | Asymmetrical revenue exposure for DPCR5 remains, thus potentially removing the incentive for some DNOs to reduce losses during DPCR5. |
| | This option could limit the incentive amount that the DNOs can earn under the DPCR4 losses incentive mechanism. |
| | The implementation of this solution would need to be complete before we issue a direction on the value of the PPL. |
| | This could alter the DNOs' forecasted allowed revenue for 2013-14 and 2014-15. |

# Option 5 – Change the DPCR5 Cap and Collar amounts



# Option 5 – Change DPCR5 cap and collar amounts

| Strengths | Weaknesses |
|---|---|
| Dependent on the size of the revised cap and collar, then there is potentially no opportunity for DNO revenue loss or gain from the interaction adjustment | All options to change cap and/or collar values will inevitably result in a widening of the gap between them, increasing exposure for DNOs and potential volatility for suppliers. This increased risk of volatility in DNO allowed revenue position would result in increased risk of volatility in customers' DUoS charges. |
| There are no interdependencies with the calculation of the DPCR4 LRRM and DPCR5 ALP. | Asymmetrical revenue exposure for DPCR5 remains, thus potentially removing the incentive to reduce losses during DPCR5 for some DNOs. |
| | This option does not provide certainty on the DNOs allowed revenue position and DUoS charges during DPCR5. |

# Questions and comments

- Do you believe these are the right options to be considering?
- Are there any other options we've missed?

# Next steps

- We are keen to hear the views of stakeholders. We will be issuing a consultation shortly.
- Following consultation, we currently intend to make decision on this issue in June/July 2012.
- The option chosen will dictate the approach we take to implementing the solution, however, it is likely a licence change will be required.

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# Deciding whether to use restated or un-restated 2009-10 data

Andy Cormie

# Background and use of 2009-10 data

- Decisions are outstanding on which versions of data to use for the DPCR4 LRRM and the DPCR5 ALP.

- The option chosen to resolve conflicts between the cap and collar and interaction adjustment may have a bearing on which 2009-10 data to use - we are therefore consulting further.

- Use of 2009-10 data is required in the following places:

  i. To calculate the 2009-10 losses "annual incentive value";
  ii. As part of the DPCR4 LRRM "the five times E" component;
  iii. As part of the DPCR4 LRRM "interaction adjustment"; and
  iv. To calculate the DPCR5 ALP.

# What happens if we don't do anything?

- For DNOs who are not successful in applications to restate their 2009-10 losses positions there is no change.

- For DNOs who are successful, the methodology would require:

| | Restated | Un-restated | Reporting Meth |
|---|---|---|---|
| Annual Incentive | x | | DPCR4 |
| LRRM "Five times E" component | x | | DPCR4 |
| LRRM Interaction Adjustment | | x | DPCR5 |
| DPCR5 ALP | | x | DPCR5 |

# A quick reminder… the LRRM Calc

5 x Incentive Rate x ($TL_{2009-10}$-$ACL_{2009-10}$) "five times E"

- ∑ Losses Incentive $_{2005-06 \text{ to } 2009-10}$ "total DPCR4 incentive"
- 5 x Incentive Rate x ($TL_{DPCR5}$ – $ACL2_{2009-10}$) "interaction adjustment"

Where:

$TL_{2009-10}$ = ($ALP_{DPCR4}$ x $LUD_{2009-10}$)

$ACL_{2009-10}$ = 2009-10 losses

And: $ALP_{DPCR4}$ = DPCR4 allowed loss percentage

$LUD_{2009-10}$= units distributed (GWh) in the final year

2009-10 data needed here

$TL_{DPCR5}$ = ($ALP_{DPCR5}$ x $UD_{2009/10}$) + S

$ACL2_{2009-10}$ = 2009-10 losses using DPCR5 common methodology

And: $ALP_{DPCR5}$ = DPCR5 allowed loss percentage

$UD_{2009-10}$ = units distributed (GWh) using DPCR5 common method

S = forecast DPCR5 annual level of substation electricity usage

# The Annual Incentive and 5xE

- 9 March 2012 decision letter makes it explicit, that any DNO allowed to adjust their 2009-10 losses position, should use restated data for the Annual Incentive

- We consider that the rationale behind this decision applies equally to the 5xE component of the LRRM Interaction Adjustment.

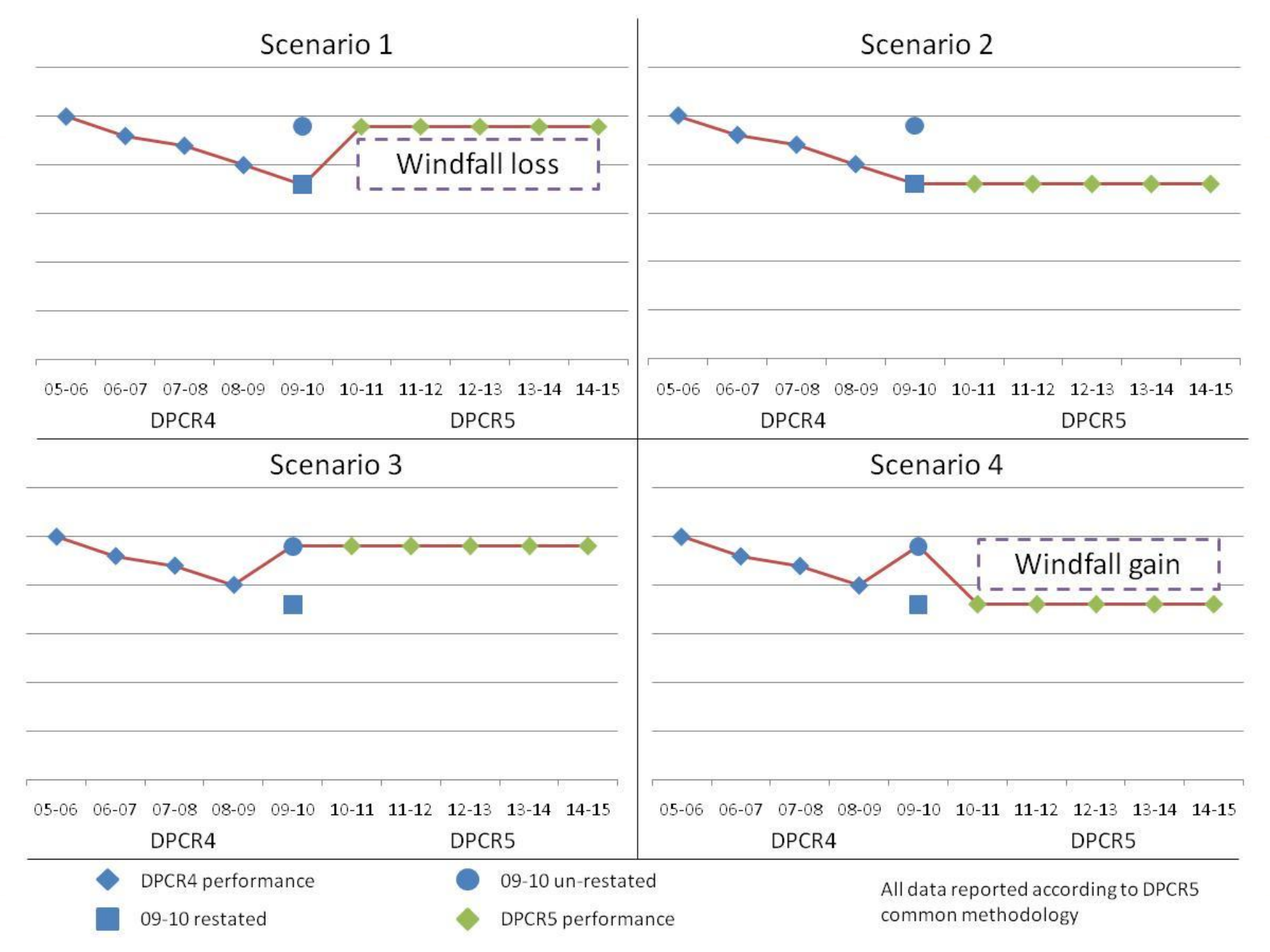
- We therefore do not propose changing the position as it stands i.e. DNOs allowed to adjust their 2009-10 losses position, should use restated data for the 5xE component of the LRRM

- Question about whether nominal or RPI indexed values should be used for the LRRM – happy to take views.

# The Interaction Adjustment

- Question is whether to use restated or un-restated $UD_{2009\text{-}10}$
- Key point of contention from consultation responses was how losses performance would change between 2009-10 and DPCR5.
- We continue to believe that this is crucial in terms of understanding whether to use restated or un-restated data for IA.

| Scen. | Level of DPCR5 losses | Data used for IA | Result |
|---|---|---|---|
| 1 | Continues at un-restated 2009-10 | Restated 2009-10 data | DNO incurs a windfall loss |
| 2 | Continues at restated 2009-10 | Restated 2009-10 data | IA operates as intended |
| 3 | Continues at un-restated 2009-10 | Un-restated 2009-10 data | IA operates as intended |
| 4 | Continues at restated 2009-10 | Un-restated 2009-10 data | DNO incurs a windfall gain |


Scenario 1
Windfall loss
05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15
DPCR4
DPCR5
Scenario 2
05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15
DPCR4
DPCR5
Scenario 3
05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15
DPCR4
DPCR5
Scenario 4
Windfall gain
05-06 06-07 07-08 08-09 09-10 10-11 11-12 12-13 13-14 14-15
DPCR4
DPCR5
DPCR4 performance
09-10 un-restated
09-10 restated
DPCR5 performance
All data reported according to DPCR5 common methodology

# Pause for questions…

More to come on interaction adjustment, but…

- Why might reported losses values increase or return to pre-2009-10 levels?
- Have you any evidence to support such thoughts?
- Should this have any bearing on whether to use the restated or un-restated 2009-10 figure for the interaction adjustment?

# Links to the cap and collar options

The options put forward to resolve the conflict between the interaction adjustment and cap and collar may affect whether you think restated or un-restated data should be used for the IA.

| Cap and Collar Options | Impact on data used to calculate the IA |
|---|---|
| Option 1: Introduce an annual DPCR5 interaction adjustment | Interaction adjustment value is annual. The derivation of the total interaction adjustment still depends on whether or not ACL2 is restated. |
| Option 2: Set 2009-10 performance as DPCR5 target | The interaction adjustment is set to zero provided data to used to calculate ACL2 is consistent with that used for ALP (ie both restated or both un-restated). |
| Option 2a; Set 2010-11 perf. as the DPCR5 target | As for Option 2. |
| Option 3: Introduce a cap and collar to the LRRM interaction adjustment | A cap and collar is applied to the interaction adjustment. The derivation of the interaction adjustment still depends on whether or not ACL2 is restated. |
| Option 4: Change the DPCR5 Cap and Collar amounts | No impact: the derivation of the interaction adjustment still depends on whether or not ACL2 is restated. |

# Questions…

- Do you have views on whether the options for resolving the cap and collar and IA affect which version of 2009-10 data should be used?

# DPCR5 ALP… a quick reminder

$$ALP = (\Sigma_{2005\text{-}06\ 2009\text{-}10} ALR_t/5) - S/UD_{2009\text{-}10}$$

2009-10 data needed here

Where:

$ALP_t$ = allowed loss percentage

$ALR_t = RL_t/UD_t$

And: $RL_t$ = losses in (GWh) recalculated using DPCR5 common method

$UD_t$ = units distributed (GWh), recalculated using DPCR5 common meth

S = is the forecast DPCR5 annual level of substation electricity usage

# Issue and existing views

- Question: restated or un-restated values for $RL_{2009\text{-}10}$ and $UD_{2009\text{-}10}$

- Mixed response to the Oct 2011 consultation – e.g.
  - Not appropriate to use un-restated data if we consider it is deficient for purposes of reporting in DPCR4
  - Settlements data correction represent valid corrections to account for error, and should not be removed
  - If corrections to settlement data were to correct errors for years prior to DPCR4, then this could inflate the average losses over DPCR4, and therefore inflate the target for DPCR5.

# Relationship with C&C options

- DPCR5 ALP is integral to all Cap & Collar options
- But, the question of restated or un-restated only affects how Option 2 operates:
  - Option 2 calculates the DPCR5 ALP based on the 2009-10 data only. If 2009-10 data contains compensatory settlement data adjustments for other years, then the ALP could be over-stated.
- Do you have views on whether the restated or un-restated 2009-10 values should be used in the DPCR5 ALP calculation?

# Restating 2009-10 using DPCR5 common methodology

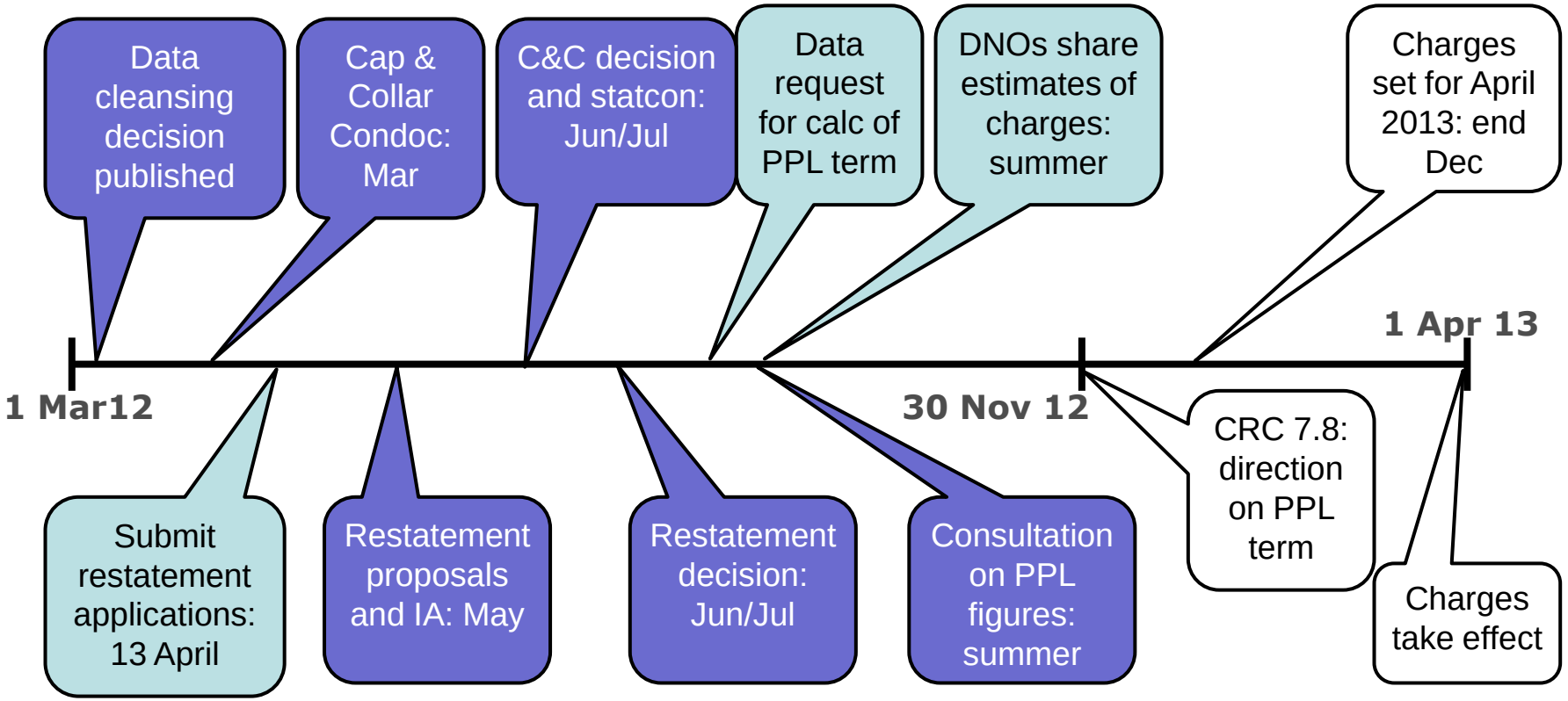
- Sought views on how to achieve a $UD_{2009\text{-}10}$ using restated data reported under common DPCR5 methodology – but views not conclusive.

- Possible options:
  - Use same process as applied to DPCR4 i.e. apply SP methodology (with stats tests) to 2005-06 to 2009-10 data reported under the DPCR5 common methodology.
  - Apply the same percentage increase to non-half-hourly units distributed in 2009-10 under the DPCR5 methodology ($UD_{2009\text{-}10}$) as that resulting from successful restatement of 2009-10 data under the DPCR4 methodology.

- Do you have views on these options at this stage?

# Final Questions and AOB

# Outline timetable




DNO action | Ofgem action | Requirement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