

Calculation of 'K' under RIIO-T1 & NTS Charging Methodology impacts



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Overview

- Key Changes Under RII0
- What needs to be done
- Current Penalty Interest Rate
- New Interest Rate Adjustment
- Current Calculation
- New Calculation
- Summary
- Next Steps

Key Changes Under RII0

From 1st April 2013 under RII0:

- 2 year lag on 'K' adjustments to allowed revenue
- Interest Rate Adjustment dependent on level of 'K'
- Under/over recovery levels for Interest Rate Adjustment allocated into bands
- 2013/2014 remain as current formula in TPCR4
- 2014/2015 formula year ' K_t ' will be zero

What needs to be done

- Update the calculation of the 'K' revenue adjustment factor based on:
 - 2 year-lag
 - Interest Rate Adjustment allocated into bands
- Amendments are applicable for calculations of the 'K' revenue adjustment factor from 2014/2015 onwards in the National Grid Transmission Transportation Charging Methodology contained in UNC TPD Section Y - Appendix A – Treatment Of Under/Over Recovery 'K'.

Current Penalty Interest Rate

- Current Penalty Interest Rate (PI_t) values (also applicable in first year of RIIO - 2013/2014):
 - Revenue collected exceeds maximum TO Revenue have PI_t value of 3
 - i.e. Revenue collected is £1100 and Maximum TO Revenue is £1000
 - Penalty Interest Rate applied is 3%
 - Revenue collected does not exceed maximum TO Revenue have PI_t value of 0
 - i.e. Revenue collected is £980 and Maximum TO Revenue is £1000
 - No Penalty Interest Rate Applied

New Penalty Interest Rate

- New Interest Rate Adjustment (PR_t) values under RIIO (applicable from 2014/2015 onwards):
 - Revenue collected exceeds 104% of maximum TO Revenue have PR_t value of 3
 - i.e. Revenue collected is £1100 and Maximum TO Revenue is £1000
 - Interest Rate Adjustment applied is 3%
 - Revenue collected is between 96% and 104% of maximum TO Revenue have PR_t value of 1.5
 - i.e. Revenue collected is £1010 and Maximum TO Revenue is £1000
 - Interest Rate Adjustment applied is 1.5%
 - Revenue collected is less than 96% of maximum TO Revenue have PR_t value of 0
 - i.e. Revenue collected is £900 and Maximum TO Revenue is £1000
 - No Interest Rate Adjustment Applied

Current Licence Calculation

$$\blacksquare \text{TOK}_t = (\text{TOR}_{t-1} - \text{TOMAR}_{t-1}) \times (1 + (\text{IR}_t + \text{PI}_t)/100)$$

Where:

- **TOK_t**: TO Revenue adjustment factor in respect of formula year t for charging purposes
- **TOR_{t-1}**: TO Entry Revenue collected in year t-1
- **TOMAR_{t-1}**: TO Maximum Allowed Revenue allocated in the Charging Methodology
- **IR_t**: Percentage interest rate in respect of formula year t [Special Condition 2A of National Grid NTS's Transporters Licence]
- **PI_t**: Penalty interest rate in respect of formula year t [Special Condition 2A of National Grid NTS's Transporters Licence]

New Licence Calculation

$$\blacksquare K_t = (\text{TOR}_{t-2} - \text{MR}_{t-2}) \times (1 + (\text{I}_{t-2} + \text{PR}_t)/100) \\ \times (1 + (\text{I}_{t-1} + 1.5)/100)^*$$

Where:

- **K_t**: Revenue adjustment factor in respect of formula year t
 - **TOR_{t-2}**: TO Revenue in year t-2
 - **MR_{t-2}**: TO Maximum Allowed Revenue allocated in the Charging Methodology
 - **I_t**: Percentage Interest Rate adjustment in formula year t with respect of formula year t-2
 - **PR_t**: Interest Rate Adjustment in formula year t with respect of formula year t-2
- For charging purposes need to split this between entry and exit

* Formula also applies for SOK_t but the calculation is not in the Methodology

Summary

TPCR4		RIIO	
1 year lag		2 year lag	
Over Recovery	3% Penalty Rate	Over 104% maximum TO Revenue	3% Interest Rate Adjustment
Under Recovery	0% Penalty Rate	Between 96% and 104% maximum TO Revenue	1.5% Interest Rate Adjustment
		Under 96% maximum TO Revenue	0% Interest Rate Adjustment

Next Steps

- The Modification is not urgent
- The Modification is required to fully align the NTS Charging Methodology with RIIO-T1
- National Grid intends to submit the Modification to the UNC Modification Panel on 20th June 2013