Application of the 2018 Rate of Return Instrument to the Victorian Electricity Distribution Networks from 1 January 2021

This document sets out the indicative modifications that the AER considers need to be made to the application of the 2018 Rate of Return (RoR) Instrument to the five Victorian electricity distribution networks for the 6 month extension period from 1 January 2021 to 30 June 2021 and for the next regulatory control period commencing on 1 July 2021.

Subject to the passing of the Victorian amending legislation, the AER intends to publish its decision on the application of the RoR Instrument to the 6 month extension period in late September 2020.

Return on Debt (RoD)

The AER will move the return on debt trailing average to financial years by using a 6 month '***mini year***' from 1 Jan 2021 to 30 June 2021.

This mini year will be followed by 5 regulatory years, each 12 months long, with the first of these regulatory years commencing on 1 July 2021.

All years (including the mini year) feed into the trailing average. The algebra for this is set out in the modified clause 9′ below, which replaces clause 9 of the 2018 RoR Instrument for the five Victorian electricity distribution networks.

Future weightings applied to historically set annual return on debt numbers (as set out in clause 9′) have been adjusted so there is no change in aggregate future weightings relative to the status quo and there are 11 periods in the trailing average for 10 years.

This requires the service providers to nominate six return on debt averaging periods for the following regulatory 'years':

    a) 1 Jan 2021 to 30 June 2021 (the mini year)

    b) 1 July 2021 to 30 June 2022

    c) 1 July 2022 to 30 June 2023

    d) 1 July 2023 to 30 June 2024

    e) 1 July 2024 to 30 June 2025

    f) 1 July 2025 to 30 June 2026

Note that in the modified clause 9′, 'transition period' retains the same meaning as in the 2018 RoR Instrument, which is to refer to the transition from an on-the-day debt approach to a trailing average debt portfolio approach. The effect of this is clause 9 of the 2018 RoR Instrument is modified as follows for the Victorian electricity distribution service providers:

9′. For the Victorian electricity distribution networks moving regulatory years from a calendar year basis to a financial year basis, the allowed return on debt for regulatory year t is calculated as follows:

$$\text{If } t = 1\,;\ k_t^d = \frac{10 - (t - t_s)}{10}\ R_{t_s}\ \ (\text{1st year of the } transition\ period)$$

$$\text{If } t > t_s \geq t - 4;\ k_t^d = \frac{10 - (t - t_s)}{10}\ R_{t_s} + \frac{1}{10} \sum_{j=t_s+1}^{t} R_j \qquad (regulatory\ years\ 2\ to\ 5)$$

$$\text{If } t = 6;\ k_t^d = \frac{10 - (t - t_s)}{10}\ R_{t_s} + \frac{1}{10} \sum_{j=t_s+1}^{t} R_j \qquad (regulatory\ year\ 6,\ a\ six\ month\ period)$$

$$\text{If } 10 \geq t \geq 7;\ k_t^d$$
$$= \frac{11.5 - t}{10}\ R_{t_s} + \frac{1}{10} \left(\sum_{j=t_s+1}^{5} R_j + \frac{1}{2} R_6 + \sum_{j=7}^{t} R_j \right) (regulatory\ years\ 7\ to\ 10)$$

$$\text{If } 14 \geq t \geq 11;\ k_t^d = \frac{1}{20}\ R_{t-10} + \frac{1}{10} \left(\sum_{j=t-9}^{5} R_j + \frac{1}{2} R_6 + \sum_{j=7}^{t} R_j \right) (regulatory\ years\ 11\ to\ 14)$$

$$\text{If } t = 15;\ k_t^d = \frac{1}{20}\ R_5 + \frac{1}{20} R_6 + \frac{1}{10} \left(\sum_{j=7}^{t} R_j \right) (regulatory\ year\ 15)$$

$$\text{If } t > 15;\ k_t^d = \frac{1}{10} \sum_{j=t-9}^{t} R_j \qquad (trailing\ average)$$

Where:

(a) k_t^d refers to the allowed return on debt for **regulatory year** t expressed as a percentage, and once finalised, is not updated. k_t^d is deemed to have been finalised on the earlier of:

      i. when the AER notifies the **service provider** of the annual estimate, or

      ii. eight weeks after the end of the (usually annual) **return on debt averaging period**, calculated in accordance with clause 23, clause 24 and clause 25.

(b) t refers to the **regulatory year** for which the allowed return on debt is being calculated, indexed so that first regulatory year of the transition period is $t = 1$, such that:
$t = 1$ = calendar year 2016
$t = 2$ = calendar year 2017
…
$t = 5$ = calendar year 2020

$t = 6$ = 1 Jan 2021 to 30 Jun 2021 (mini year)

$t = 7$ = financial year 2021-22

$t = 8$ = financial year 2022-23

… and so on

(c) t_s refers to the first **regulatory year** of the **transition period**; we set t_s = 1 so $t_s = t = 1$ = calendar year 2016

(d) R_{t_s} refers to the on-the-day rate of return on debt in **regulatory year** t_s, and is calculated in accordance with clause 10

(e) j indexes a series of **regulatory years** for summation

(f) R_j refers to the on-the-day rate of return on debt in any **regulatory year** in the series j, and is calculated in accordance with clause 10

(g) $k_t^d = \frac{10-(t-t_s)}{10} R_{t_s}$ refers to the calculation of the allowed return on debt in **regulatory year** t, when **regulatory year** t is the first year of the **transition period.**

Note 3: For example, if for a particular service, t_s is 1 (ie, the first **regulatory year** of the **transition period** for that service):

- and if t **is 1** (ie, the first **regulatory year** of the **transition period**), then

$k_1^d = \frac{10-(1-1)}{10} R_1$,as $t_s = t$ ie, $1 = 1$, thus

$k_1^d = R_1$

(h) $k_t^d = \frac{10-(t-t_s)}{10} R_{t_s} + \frac{1}{10}\sum_{j=t_s+1}^{t} R_j$ refers to the calculation of the allowed return on debt in **regulatory year** t during the regulatory years two to six of the **transition period**.

Note 4: For example, if for a particular service, t_s is 1 (ie, the first **regulatory year** of the **transition period** for that service):

- and if t **is 2**, then

$k_2^d = \frac{10-(2-1)}{10} R_1 + \frac{1}{10}\sum_{j=2}^{2} R_j$ as $t > t_s \geq t - 4$ ie, $2 > 1 \geq -2$, thus

$k_2^d = 0.9\,R_1 + 0.1R_2$

- and if t **is 5** (ie, the 5th **regulatory year** of the **transition period**), then

$k_5^d = \frac{10-(5-1)}{10} R_1 + \frac{1}{10}\sum_{j=2}^{5} R_j$ as $t > t_s \geq t - 4$, ie, $5 > 1 \geq 1$, thus

$k_5^d = 0.6\,R_1 + 0.1R_2 + 0.1R_3 + 0.1R_4 + 0.1R_5$

- and if t **is 6** (ie, the 6th **regulatory year** of the **transition period**, noting that this regulatory year is a six month period), then

$k_6^d = \frac{10-(6-1)}{10} R_1 + \frac{1}{10}\sum_{j=2}^{6} R_j$ as $t = 6$, thus

$k_5^d = 0.5\,R_1 + 0.1R_2 + 0.1R_3 + 0.1R_4 + 0.1R_5 + 0.1R_6$

(i) $k_t^d = \frac{11.5-t}{10} R_{t_s} + \frac{1}{10}\left(\sum_{j=t_s+1}^{5} R_j + \frac{1}{2}R_6 + \sum_{j=7}^{t} R_j\right)$ refers to the calculation of the allowed return on debt in **regulatory year** t during the regulatory years seven to ten of the **transition period**.

Note 5: For example, if for a particular service, t_s is 1 (ie, the first **regulatory year** of the **transition period** for that service):

      i. and if t **is 8**, then

$k_8^d = \frac{11.5-8}{10} R_{t_s} + \frac{1}{10}\left(\sum_{j=t_s+1}^{5} R_j + \frac{1}{2}R_6 + \sum_{j=7}^{8} R_j\right)$ as $10 \geq t \geq 7$ ie, $10 \geq 8 \geq 7$, thus

$k_8^d = 0.35\,R_1 + 0.1R_2 + 0.1R_3 + 0.1R_4 + 0.1R_5 + 0.05R_6 + 0.1R_7 + 0.1R_8$

(j) $k_t^d = \frac{1}{20} R_{t-10} + \frac{1}{10}\left(\sum_{j=t-9}^{5} R_j + \frac{1}{2}R_6 + \sum_{j=7}^{t} R_j\right)$ refers to the calculation of the allowed return on debt in **regulatory year** t during the regulatory years eleven to fourteen of the **transition period**.

Note 5A: For example, if for a particular service, t_s is 1 (ie, the first **regulatory year** of the **transition period** for that service):

      i. and if t **is 12**, then

$k_{12}^d = \frac{1}{20} R_2 + \frac{1}{10}\left(\sum_{j=3}^{5} R_j + \frac{1}{2}R_6 + \sum_{j=7}^{12} R_j\right)$ as $15 \geq t \geq 11$ ie, $15 \geq 12 \geq 11$, thus

$k_{12}^d = 0.05\,R_2 + 0.1R_3 + 0.1R_4 + 0.1R_5 + 0.05R_6 + 0.1R_7 + 0.1R_8 +$
$\qquad\quad 0.1R_9 + 0.1R_{10} + 0.1R_{11} + 0.1R_{12}$

(k) $k_t^d = \frac{1}{20} R_5 + \frac{1}{20}R_6 + \frac{1}{10}\left(\sum_{j=7}^{t} R_j\right)$ refers to the calculation of the allowed return on debt in **regulatory year** t for the regulatory year 15.

Note 5B: For example, if for a particular service, t_s is 1 (ie, the first **regulatory year** of the **transition period** for that service):

      i. and if t **is 15**, then

$k_{15}^d = \frac{1}{20} R_5 + \frac{1}{20}R_6 + \frac{1}{10}\left(\sum_{j=7}^{15} R_j\right)$ as $t = 15$, thus

$k_{12}^d = 0.05\,R_5 + 0.05R_6 + 0.1R_7 + 0.1R_8 + 0.1R_9 + 0.1R_{10} +$
$\qquad\qquad 0.1R_{11} + 0.1R_{12} + 0.1R_{13} + 0.1R_{14} + 0.1R_{15}$

(l) $k_t^d = \frac{1}{10}\sum_{j=t-9}^{t} R_j$ refers to the calculation of the allowed return on debt in **regulatory year** t using a **trailing average portfolio approach**, upon the completion of the move to financial years (ie when t > 15).

Note 5C: For example, if for a particular service, t_s is 1 (ie, the first regulatory year of the transition period):

- And if t **is 17** (ie, the 17th regulatory year), then

$k_{17}^d = \frac{1}{10}\sum_{j=8}^{17} R_j$ as $t > 15$ ie, $17 > 15$, thus

$k_{17}^d = 0.1\,R_8 + 0.1R_9 + 0.1R_{10} + 0.1R_{11} + 0.1R_{12} +$
$\qquad\qquad\qquad 0.1R_{13} + 0.1R_{14} + 0.1R_{15} + 0.1R_{16} + 0.1R_{17}$

(finish of clause 9′)

As a result it is, all else equal, both:

- Consistent with the direction of the Victorian government to apply the 2018 RoR Instrument from 1 Jan 2021, and

- Consistent with correct NPV compensation to the regulated businesses over the life of their investments and therefore likely to contribute to the achievement of the NEO to the greatest degree.

In addition, secondary considerations in support of this approach are:

- It is relatively simple to implement, effectively transitioning the trailing average to financial years through the use of an appropriately weighted 6 month mini year from 1 Jan 2021 to 30 June 2021, and

- It is relatively close to the prior trailing average approach

The averaging periods for the 12 month regulatory years from 1 July 2021 to 30 June 2026 must maintain the following modified requirements in clauses 23′ and 24′ for selecting averaging periods, replacing clauses 23 and 24 of the 2018 RoR Instrument:

23′. For the Victorian electricity distribution networks moving regulatory years from a calendar year basis to a financial year basis, the return on debt averaging periods are:

a) The periods nominated by a service provider to which the instrument is being applied and which satisfies the conditions set out in clause 24', whether the periods were nominated before or after the commencement of the Victorian legislation to amend the NEVA;

b) if an averaging period for any regulatory year or the mini year is not nominated in accordance with the conditions set out in clause 23'a), or a period is nominated that does not meet the conditions set out in clause 24' the averaging period shall be a period of 20 consecutive business days in length that finishes 4 months before the start of the applicable regulatory year or mini year.

24′. The return on debt averaging periods nominated in accordance with clause 23′ a) must:

a) be over a period of 10 or more consecutive business days, up to a maximum of 12 months, and

b) start no earlier than 16 months prior to the commencement of the relevant regulatory year or the 'mini year', as applicable and

c) finish no later than 4 months prior to the commencement of the regulatory year, or the mini year as applicable and

d) be specified for each regulatory year within the forthcoming regulatory control period and also for the mini year, and

e) not overlap for each different regulatory year and the mini year although the averaging period is not required to be identical for each regulatory year or the mini year, and

f) not result in the averaging period for the mini year occurring after the averaging period for the financial year commencing 1 July 2021, and

g) be nominated both:

    i.   prior to the start of the return on debt averaging period, and

ii.   no later than the lodgement date of the regulatory proposal for the forthcoming regulatory control period

Return on equity

The return on equity will be determined for the following two regulatory time periods:

- 1 Jan 2021 to 30 June 2021 (the 'mini year')
- 1 July 2021 to 30 June 2026 (the five year regulatory control period)

This requires service providers to nominate two return on equity risk free rate averaging periods, one for each of the above regulatory time periods (to determine the Return on equity (RoE) for each time period).

The risk free rate averaging period for the regulatory control period from 1 July 2021 to 30 June 2026 must maintain all of the following modified requirements in clauses 7′ and 8′, of the 2018 RoR Instrument. The risk free rate for the 'mini year' must meet all the requirements in the following modified clauses 7″ and 8″ of the 2018 RoR Instrument. This means clauses 7 and 8 of the 2018 RoR Instrument are replaced by modified clauses 7′, 8′, 7″ and 8″.

7′. For the Victorian electricity distribution networks moving regulatory years from a calendar year basis to a financial year basis, the risk free rate averaging period for the five year regulatory control period is:

a) the period nominated by a service provider which satisfies the conditions set out in clause 8′, whether the period was nominated before or after the commencement of the Victorian legislation to amended the NEVA, or

b) if no period is nominated in accordance with clause 7′a), or a period is nominated that does not meet the conditions set out in clause 8′ for the regulatory control period to which this instrument is being applied, a period of 20 consecutive business days in length that finishes 3 months before the start of the regulatory control period on 1 July 2021.

8′. A risk free rate averaging period nominated in accordance with clause 7′a) must:

a) be over a period of 20 or more business days up to a maximum of 60 business days.

b) start no earlier than 7 months prior to the commencement of the regulatory control period on 1 July 2021

c) finish no later than 3 months prior to the commencement of the regulatory control period on 1 July 2021, and

d) be nominated both:

i. prior to the start of the risk free rate averaging period, and

ii. no later than the date of lodgement of the regulatory proposal for the regulatory control period.

7″. For the Victorian electricity distribution networks moving regulatory years from a calendar year basis to a financial year basis, the risk free rate averaging period for the 'mini year' is:

a) the period nominated by a service provider which satisfies the conditions set out in clause 8″, whether the period was nominated before or after the commencement of the Victorian legislation to amend the NEVA, or

b) if no period is nominated in accordance with clause 7″a), or a period is nominated that does not meet the conditions set out in clause 8″ for the regulatory time period to which this instrument is being applied (from 1 Jan 2021 to 30 June 2021), a period of 20 consecutive business days in length that finishes 3 months before the start of the regulatory time period (on 1 Jan 2021).

8″. A risk free rate averaging period nominated in accordance with clause 7″a) must:

a) be over a period of 20 or more business days up to a maximum of 60 business days.

b) start no earlier than 7 months prior to the commencement of the mini year on 1 Jan 2021

c) finish no later than 3 months prior to the commencement of the mini year on 1 Jan 2021, and

d) be nominated both:

i. prior to the start of the risk free rate averaging period, and

ii. no later than the date of lodgement of the regulatory proposal for the forthcoming regulatory control period.

For avoidance of doubt, clauses 7″ and 8″ have been modified because the AER is determining a unique RoE for the mini year, which is the period from 1 Jan 2021 to 30 June 2021. The effect is to treat the period from 1 Jan 2021 to 30 June 2021 as a distinct regulatory time period (even though it may be legally part of an extended regulatory control period under the NEVA changes). This is also consistent with its treatment as a distinct period for the purposes of calculating the annual return on debt and its incorporation into the trailing average return on debt.

Other clauses in the 2018 RoR Instrument

Other than modification to clauses 7, 8, 9, 23 and 24 of the 2018 RoR Instrument set out above, all other clauses of the 2018 RoR Instrument are to be applied as set out in the Instrument. In particular, we note that this means the value of imputation credits is set at 0.585 (clause 27), and this value will be applied from 1 January 2021.