

Rate-regulated Activities

Preview of forthcoming exposure draft



World
Standard-setters
Conference
2019

#WSS_2019

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Agenda

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Objective of the session

Useful information for the planning of outreach activities

Overview of the model

- Problem and purpose
- Scope: defined rate regulation
- Total allowed compensation and regulatory assets and regulatory liabilities
- Measurement

Panel discussion

Appendix—Solutions for numerical examples



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- Insert <https://www.sli.do/> in the browser of your electronic device i.e. mobile phone, tablet or laptop
- Select the correct session from the dropdown menu and wait for further instructions.



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Objective



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Objective of the session

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Provide you with information about the following matters to help you plan outreach activities on the next consultation document:

- the timeline for publication of the forthcoming exposure draft; and
- the key aspects of the proposed accounting model for regulatory assets and regulatory liabilities (model)

Discuss and share information about plans and past experience for outreach activities



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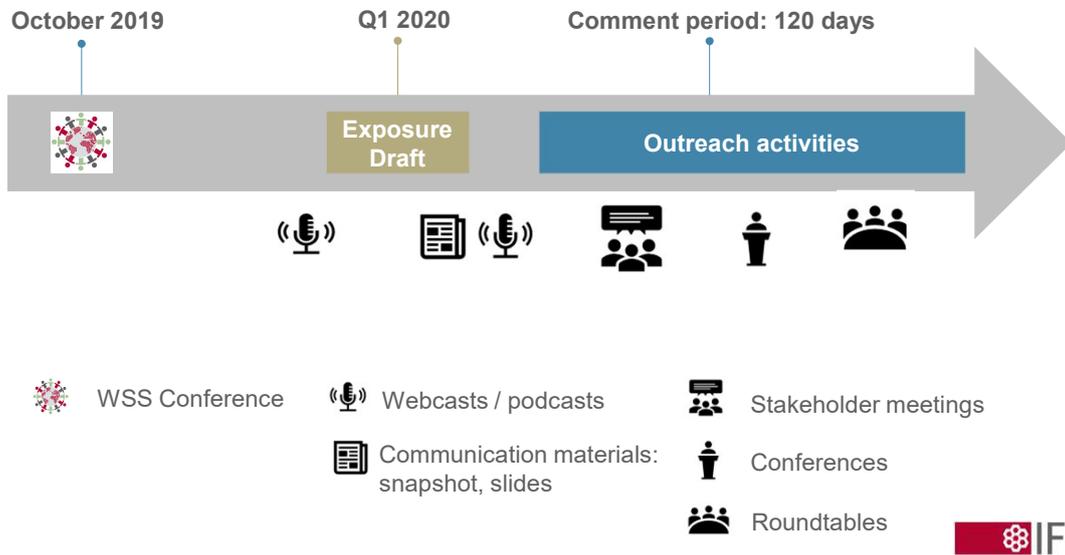
Useful information for the
planning of outreach activities



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Useful information for outreach activities

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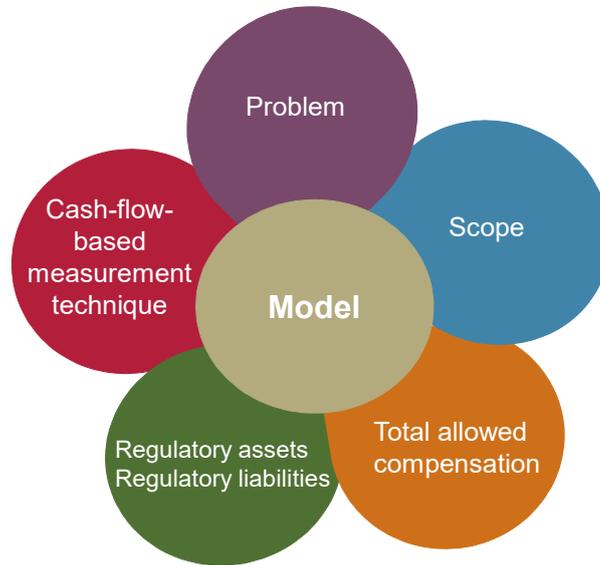
Overview of the model



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Top five takeaways

9



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Overview of the model

Problem and
purpose of the model

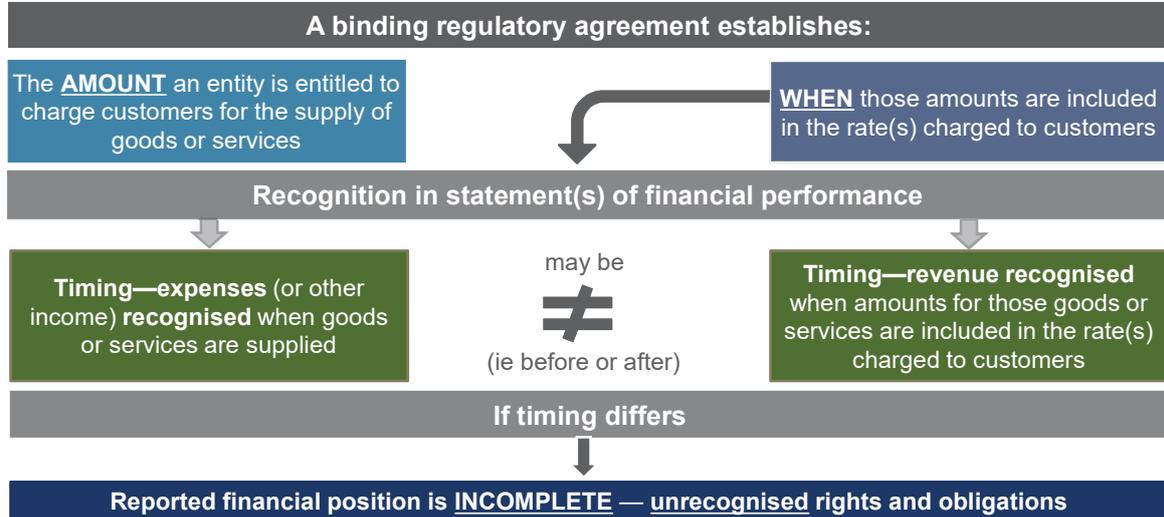


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Problem



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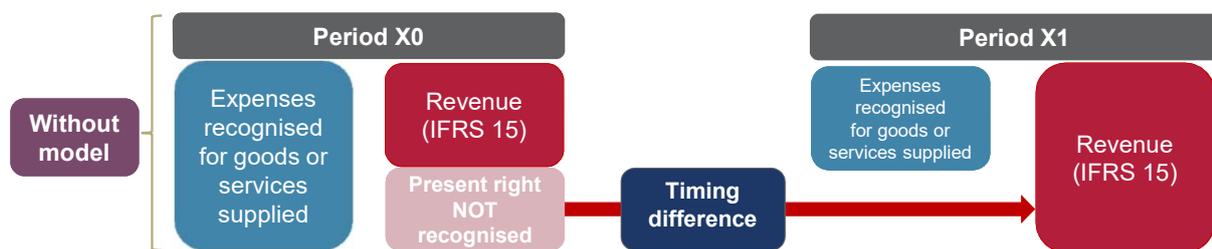


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Problem and purpose of the model—regulatory asset



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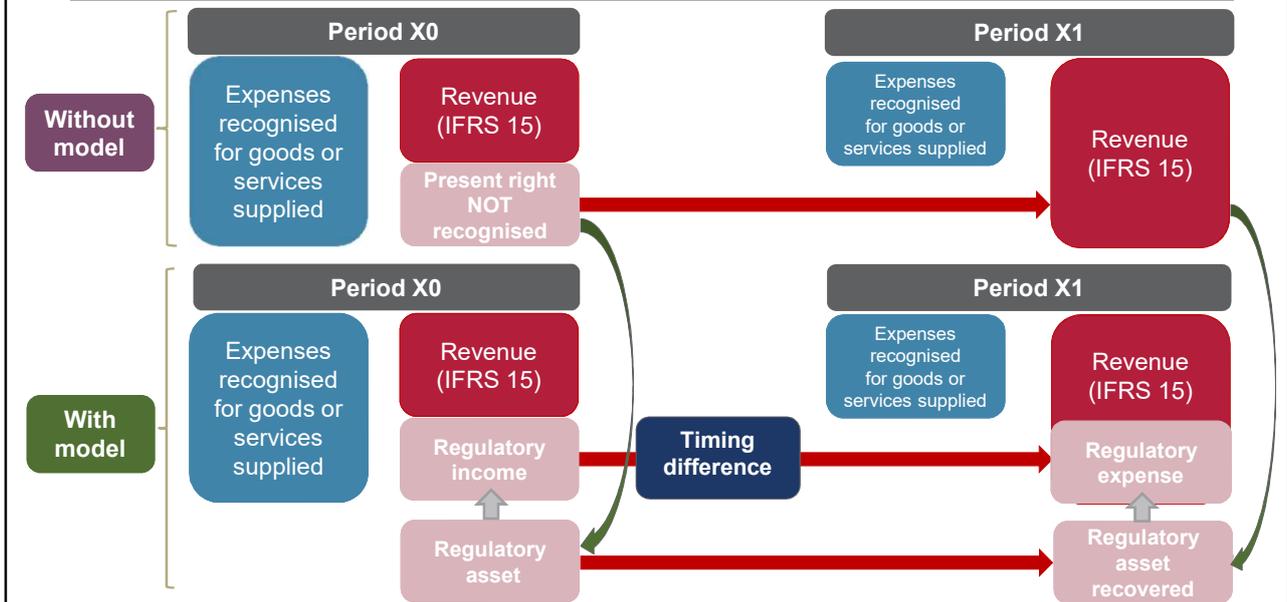


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Problem and purpose of the model— regulatory asset



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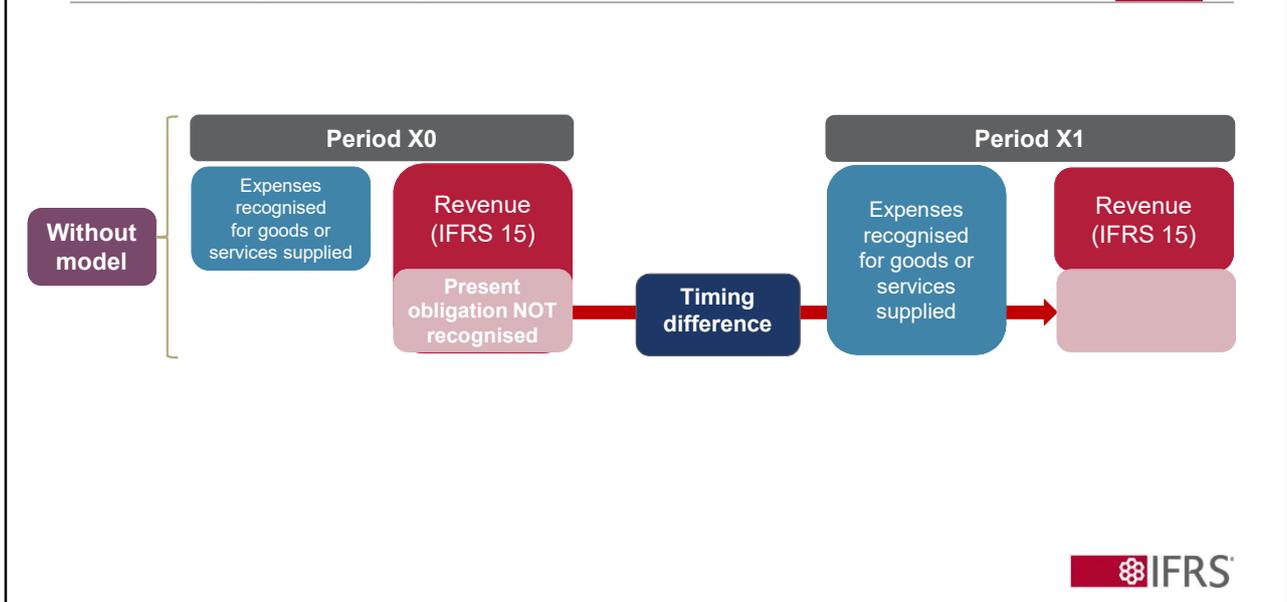


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Problem and purpose of the model— regulatory liability

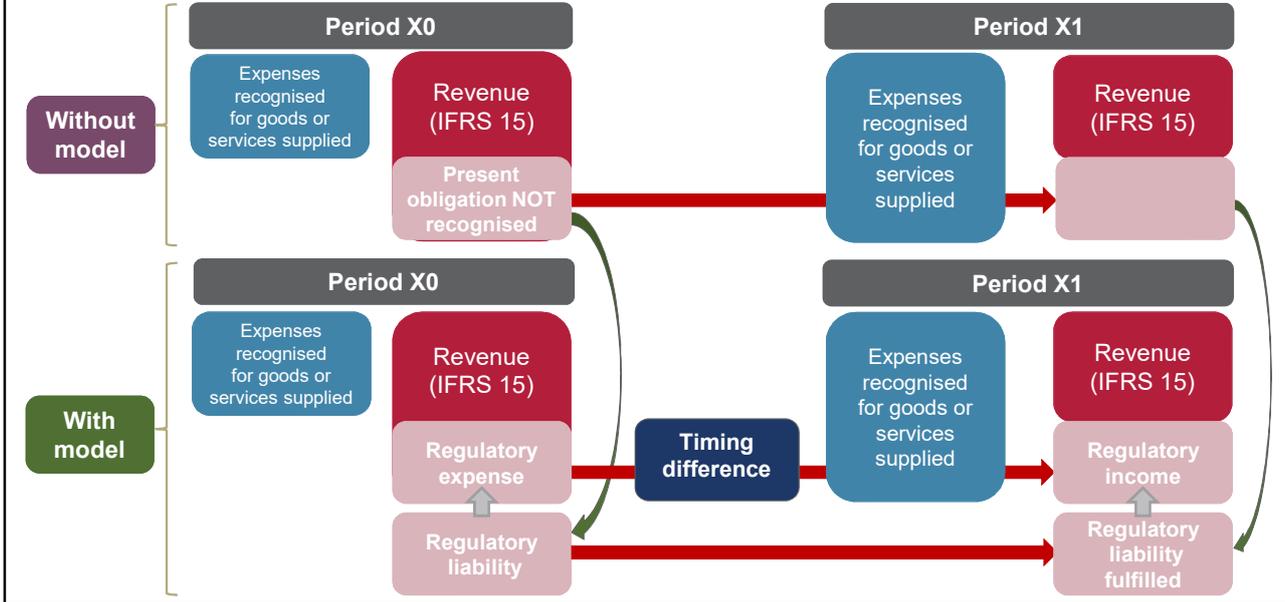


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Problem and purpose of the model— regulatory liability



Overview of the model

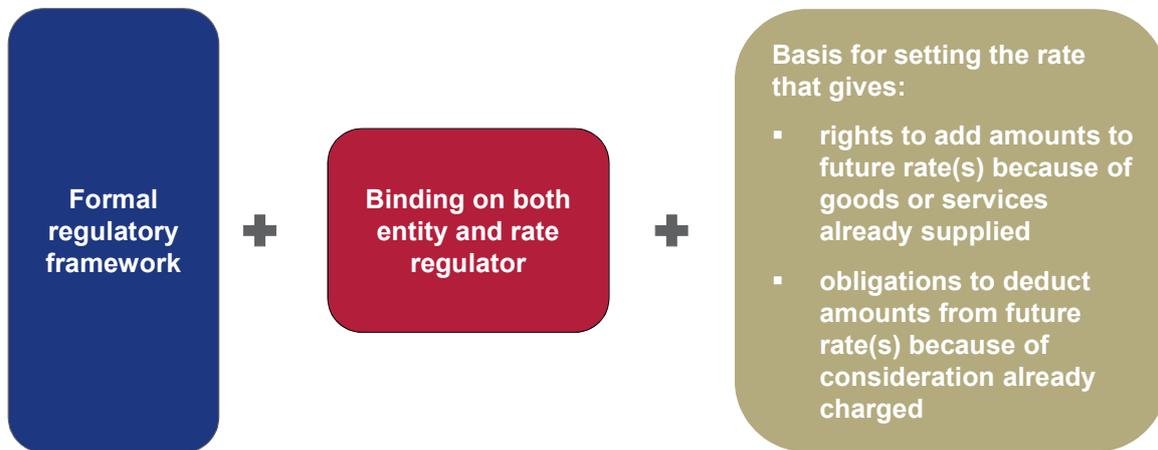
Scope: defined rate regulation



Defined rate regulation



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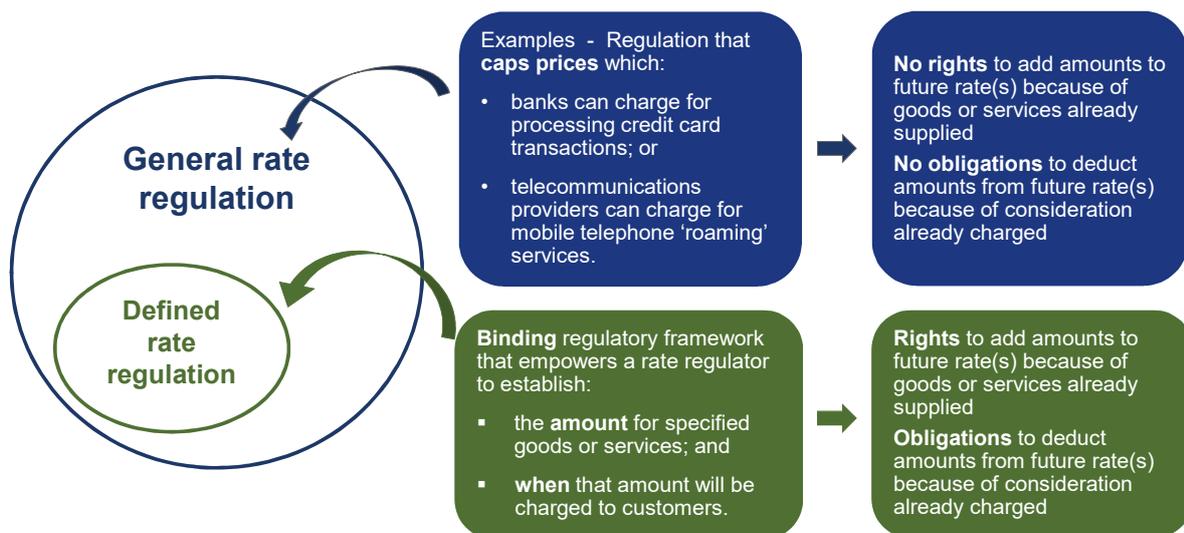


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Defined rate regulation vs other types of rate regulation



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Question 1



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Is the statement below accurate?

'The proposals may primarily affect the utilities industry. Therefore, they are industry-specific.'

- A. Yes, the proposals may primarily affect the utilities industry and hence could be labelled as 'industry-specific'.
- B. No, a wide range of industries are subject to rate regulation which may qualify as defined rate regulation (eg energy, water, public transport, toll roads, air traffic control, port and airport services, telecommunications, postal services, fertilisers, health services, cemeteries).
- C. No, the proposals are 'contract-specific'. The proposals will affect those regulated activities established through regulatory agreements that result in present rights and present obligations to adjust the future rate(s).
- D. B and C are correct.



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Question 2



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Would entities subject to regulation that takes the form of a 'price cap' be within the scope of the proposals?

- A. Yes, 'price cap' regulation would always be within the scope of the proposals.
- B. No, 'price cap' regulation will always be outside the scope of the proposals.
- C. It depends. An entity may be within the scope of the proposals if, for example, the entity has a present right or a present obligation to adjust the future rate(s) for variances between:
 - (i) estimated revenues based on a price cap and an estimated quantity of goods or services to be supplied and
 - (ii) actual amounts charged to customers (i.e. actual revenues).



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Question 3



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Entity A is subject to a regulatory agreement that includes a basis for setting the rate that allows any variances between:

- (a) estimated revenues (based on an estimated quantity of goods to be supplied); and
- (b) actual revenues

to be recovered from / refunded to the **regulator directly**.

Is the regulatory agreement within the scope of the proposals?

- A. Yes, Entity A has a present right for additional compensation or a present obligation to reimburse an amount depending on whether actual revenue is lower or higher than the estimated revenue.
- B. No, because any present rights or present obligations do not represent addition/deduction of amounts to/from the future rate(s) charged to customers but a receivable/payable from/to the regulator.
- C. Not sure.



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Question 4



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Entity B is subject to a regulatory agreement that includes a basis for setting a rate in which:

- (a) the rate is set to recover the estimated costs of constructing and operating a power plant; and
- (b) any variances between actual and estimated costs are at the risk of Entity B unless they are 'outside its control' as stipulated in the regulatory agreement.

Would the regulatory agreement be within the scope of the proposals?

- A. Yes, Entity B has a present right for additional compensation when the rate(s) charged to customers do not provide for full recovery of estimated construction and operation costs of the power plant.
- B. No, because the basis for setting the rate(s) does not create rights/obligations to add/deduct amounts to/from the future rate(s) to be charged to customers based on variances in costs incurred.
- C. It depends on the individual facts and circumstances including whether and how any variances 'outside the entity's control' are recovered by Entity B (ie through future rate(s) to be charged to customers or directly from the regulator).
- D. Not sure.



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Overview of the model

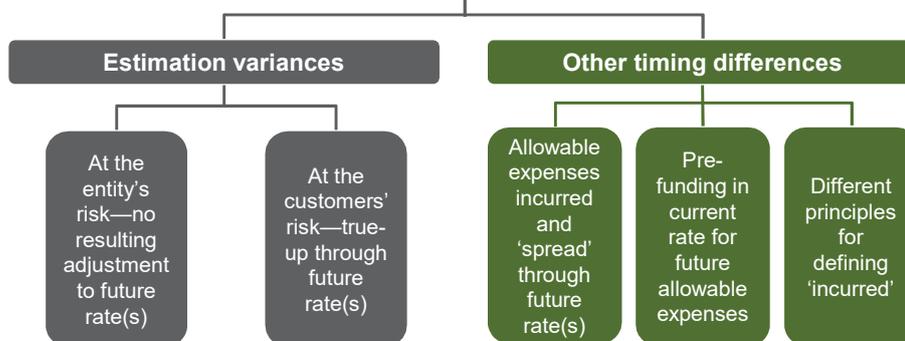
Total allowed compensation and
regulatory assets and regulatory liabilities

Total allowed compensation—timing



Total allowed compensation—the amount an entity is entitled to charge customers for the goods or services supplied during the period

Typically, this compensation is included in the same period the goods or services are supplied but some **timing differences** may arise

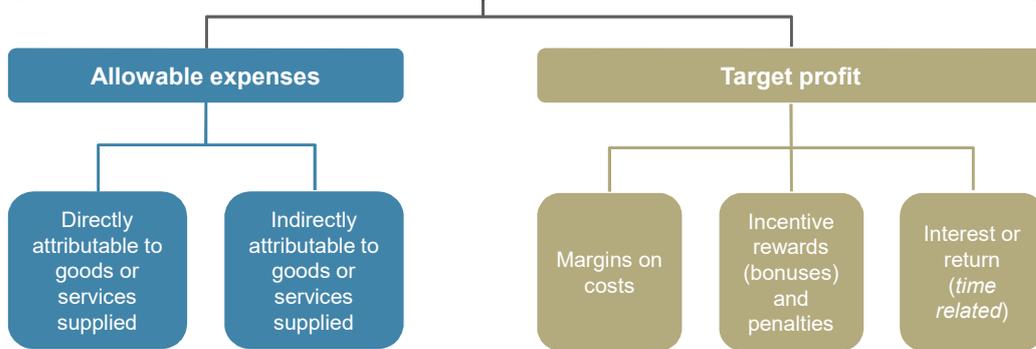


Total allowed compensation—amount



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Total allowed compensation—the amount an entity is entitled to charge customers for the goods or services supplied during the period

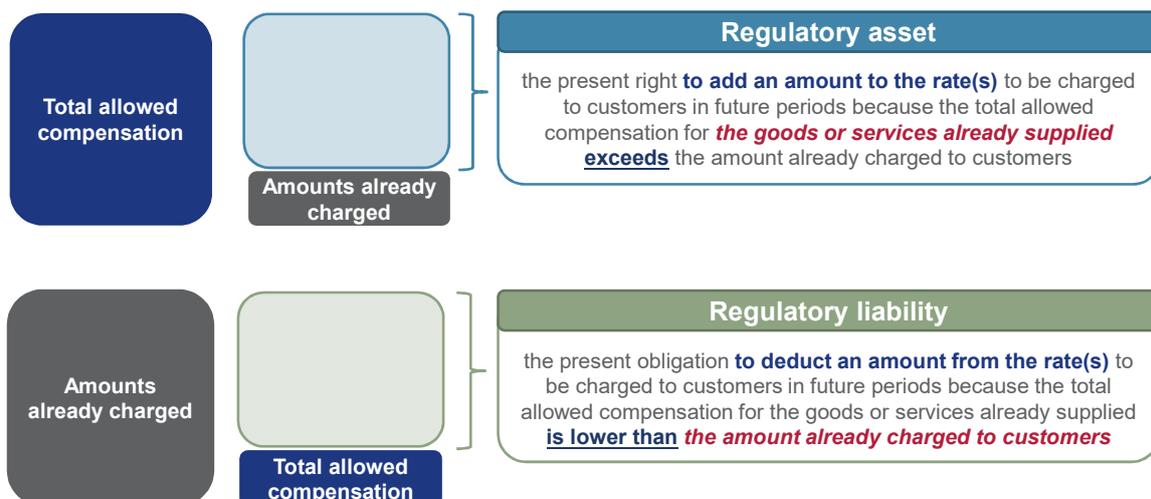


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Regulatory assets and regulatory liabilities



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Regulatory assets and regulatory liabilities—Question 5



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Entity C is subject to a regulatory agreement that includes a basis for setting the rate that allows it to include any variances between estimated and actual input costs incurred in the rate(s) charged to customers in the following year.

Entity C incurred actual input costs of CU1,100 during year X0, but was only compensated for estimated input costs of CU1,000 through the rate(s) charged to customers in X0. Entity C has the present right to increase rate(s) in X1 to recover the variance of CU100.

Applying the model, what is the total allowed compensation for Entity C relating to the input costs incurred during year X0?

- A. CU1,000
- B. CU1,100
- C. CU900
- D. Not sure



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Regulatory assets and regulatory liabilities—Question 5A



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Under the model, would Entity C recognise a regulatory asset for the variance in input costs at the end of year X0?

- A. Yes, Entity C has a present right to add the amount of the variance (CU100) to the rate(s) to be charged to customers in year X1, because the total allowed compensation of CU1,100 for goods or services supplied in X0 exceeds the amount already charged to customers (CU1,000).
- B. No, Entity C does not have a present right to add the amount of the variance (CU100) to the future rate(s) to be charged to customers. A right to increase prices in the future does not give rise to an asset.
- C. Not sure.



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Regulatory assets and regulatory liabilities—Question 6



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Entity D is bound by a regulatory agreement for the provision of water services to customers. The regulator requires Entity D to upgrade a network of water pipelines during years X1–X2 that will require an investment of CU1,000. The upgraded network will be used for the supply of services from the start of year X3 and will have a useful life of 10 years.

To support the cash flow requirements for the upgrade, the regulator allows Entity D to charge a higher rate to customers in year X1 which provides incremental cash flows of CU500. As a result, Entity D has an obligation to deduct CU500 from the future rate(s).

Applying the model, what is the total allowed compensation for Entity D relating to the services supplied using the upgraded network during X1?

- A. CU500
- B. CU1,000
- C. CU0
- D. Not sure



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Regulatory assets and regulatory liabilities—Question 6A



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Under the model, would Entity D recognise a regulatory liability at the end of year X1 relating to the CU500 already charged to customers for the upgrade works?

- A. No, Entity D does not have a present obligation to deduct the amount charged to customers during X1 (CU500) from the future rate(s). A reduction in prices in the future does not give rise to a liability.
- B. Yes, Entity D has a present obligation to deduct the amount charged during X1 (CU500) from the rate(s) to be charged to customers once the upgraded network is placed in use, because the amount already charged to customers (CU500) exceeds the total allowed compensation for the services supplied during X1 (CU0).
- C. Not sure.



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Regulatory assets and regulatory liabilities—Question 7



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Entity E operates in Country M and is bound by a regulatory agreement that includes a basis for setting the rate(s) which incorporates adjustments to the future rate(s) to be charged to customers.

Country M's economy is experiencing an inflationary period. In year X0, the regulator approves an inflationary adjustment of 5% for the estimated operating costs to be incurred when supplying services in year X1. This adjustment will be included in the rate(s) charged to customers during X1. Based on an estimated quantity of services to be supplied, this inflationary adjustment would result in an amount of CU100 to be added to the rate(s) in year X1.

Under the model, would Entity E recognise a regulatory asset for the inflation adjustment at the end of year X0?

- A. Yes, Entity E has a present right to add the amount of inflation adjustment to the rate(s) to be charged to customers in year X1.
- B. No. Even though Entity E has a present right to add an amount of CU100 in the rate(s) to be charged in X1, the inflation adjustment is not part of the total allowed compensation for services supplied in X0 but is part of the ongoing compensation that Entity E is entitled to when supplying services in X1.
- C. Not sure.



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Overview of the model

Measurement



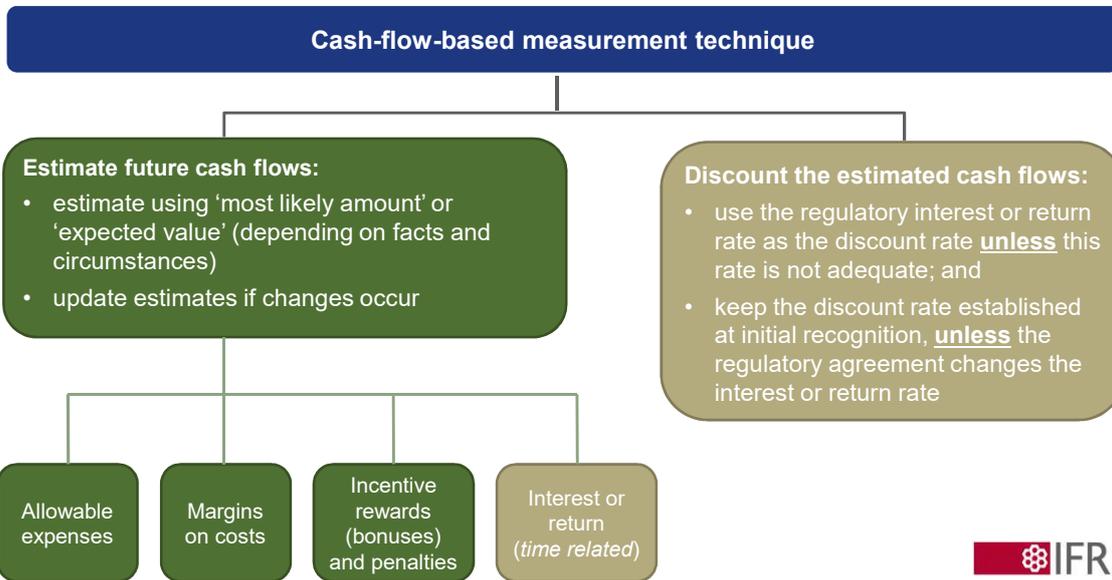
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Measurement—a modified historical cost cash-flow-based measurement technique



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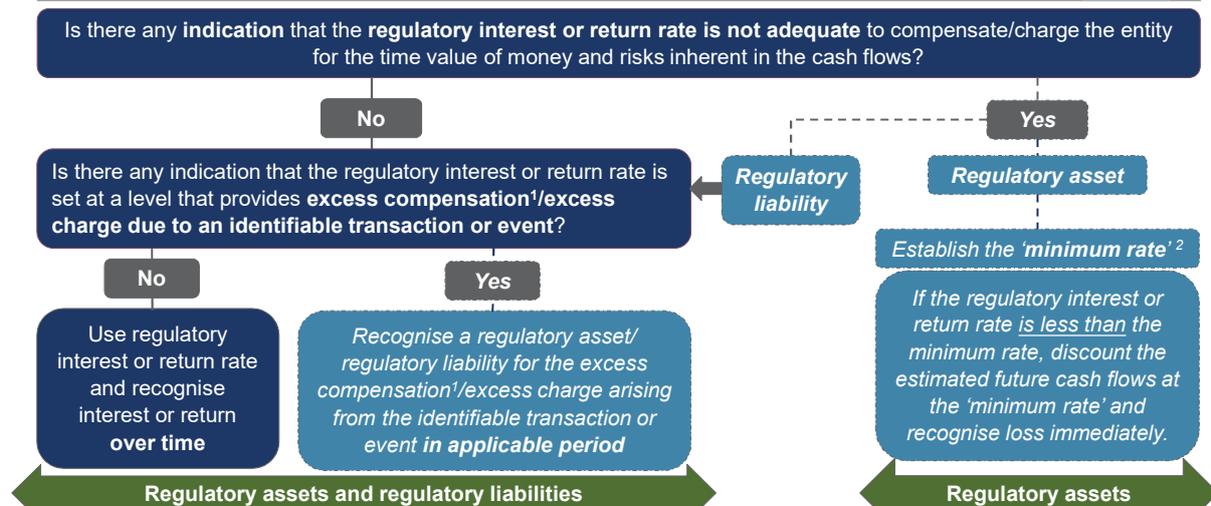


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Adequacy of the regulatory interest or return rate



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¹ Excess compensation can arise when the regulatory interest or return rate on:
 (a) regulatory asset **compensates an entity more** than the rate that reflects time value of money and risks inherent in the cash flows.
 (b) regulatory liability **charges an entity less** than the rate that reflects time value of money and risks inherent in the cash flows.

² Minimum rate—the rate that the entity would expect to receive for a stream of cash flows with the same timing and uncertainty as those of the regulatory asset.

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Measurement—Question 8



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Entity F is bound by a regulatory agreement for the supply of electricity services to customers.

Assume at the end of X0, a regulatory asset of CU100 arises. Entity F is entitled to include in the rate(s) charged to customers:

- CU100 over X1-X5 on a straight-line basis; and
- an annual return of 10% on the outstanding opening balance of the regulatory asset.

The total cash flows, including returns, will be CU130 (assuming no uncertainty and risks).

Assume that an interest rate of 3% would reflect the time value of money and risks inherent in the cash flows arising from the regulatory asset. The excess return from the 10% regulatory return rate does not relate to an identifiable transaction or event.

Applying the model, the regulatory asset will be measured at which of the following amounts at the end of year X0?

- A. CU100 (estimated cash flows of CU130 discounted at 10%)
- B. CU120 (estimated cash flows of CU130 discounted at 3%)
- C. CU130 (estimated cash flows of CU130 discounted at 0%)
- D. Not sure.



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Measurement—Question 9



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This example uses the same fact pattern as of the previous example, except in this example the regulatory agreement does not provide an annual return on the outstanding opening balance of the regulatory asset.

Entity F determines an interest rate of 3% as the 'minimum rate' that would reflect the time value of money and risks inherent in the cash flows arising from the regulatory asset.

Applying the model, the regulatory asset will be measured at which of the following amounts?

- A. CU100 (estimated cash flows of CU100 discounted at 0%)
- B. CU92 (estimated cash flows of CU100 discounted at 3%)
- C. Not sure.



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Overview of the model

Presentation and disclosure



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Presentation and disclosure

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Present as **separate line items**:

- in the statement of financial position, **regulatory assets and regulatory liabilities**;
- in the statement(s) of financial performance, the net movement between the opening and closing carrying amounts of regulatory assets and regulatory liabilities—**immediately below the revenue line item**. This line item will be labelled **regulatory income or regulatory expense**.

Overall disclosure objective focused on the effects that the transactions or other events that give rise to timing differences have on an entity's financial performance and financial position.

The information to be disclosed is information that will help users to understand the entity's financial performance, financial performance trends and assess the amounts, timing and uncertainty of (prospects for) its future cash flows.

In limited cases, the model requires presentation of regulatory income or regulatory expense in other comprehensive income (OCI) if the underlying item is also presented in OCI.



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Presentation—statement of profit or loss

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Revenue	10,000
Regulatory income (note X, next slide)	700
	10,700
Expenses	(8,500)
Profit before tax	2,200

Charged to customers this year (IFRS 15 *Revenue*):

- Includes amounts for goods or services supplied in other years—past or future;
- Does not include amounts for goods or services supplied this year—charged in past or future

- Amounts charged to customers in other years—past or future—for goods or services supplied this year; **less**
- Amounts charged to customers this year for goods or services supplied in other years—past or future

Optional sub-total: all amounts chargeable to customers in this or other years for goods or services supplied this year

Includes all expenses incurred this period for goods or services supplied this year

The numbers in this slide are for illustrative purposes only and are not related to any other examples in this presentation.



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Disclosures—Note X Regulatory income

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Amounts for goods or services supplied in current year:	
- to be charged to customers in future years	800
- already charged to customers in prior years	250
Amounts charged to customers in current year:	
- for future services	(300)
- for services in prior years	(150)
Net regulatory interest on regulatory assets and regulatory liabilities	90
Changes in estimates	10
Regulatory income (previous slide)	700

Addition to regulatory assets

Fulfilment of regulatory liabilities

Addition to regulatory liabilities

Recovery of regulatory assets

- Amounts charged to customers in other years—past or future—for goods or services supplied this year; **less**
- Amounts charged to customers this year for goods or services supplied in other years—past or future

The numbers in this slide are for illustrative purposes only and are not related to any other examples in this presentation.



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Disclosures—Note X Maturity analysis

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Maturity of regulatory assets and regulatory liabilities	Total	Within one year	Between one and five years	More than five years
Regulatory assets as at 31 December X1	800	100	400	300
Regulatory liabilities as at 31 December X1	500	50	200	250

Amounts to be added to future rate(s)

Amounts to be deducted from future rate(s)

The model also requires disclosure of information on risks and uncertainties associated with the regulatory assets and regulatory liabilities outstanding as of the reporting date.

The numbers in this slide are for illustrative purposes only and are not related to any other examples in this presentation.



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Comparison with US GAAP

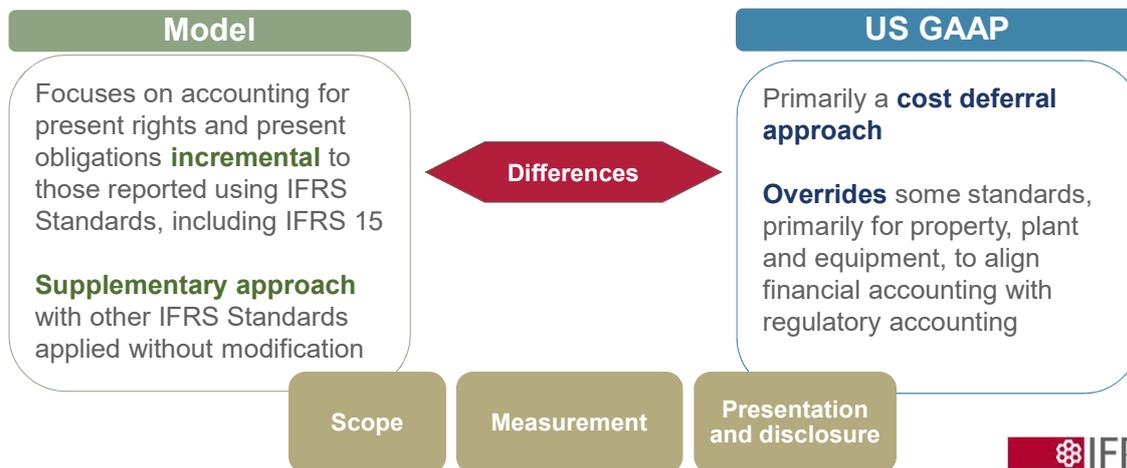


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Difference in approach

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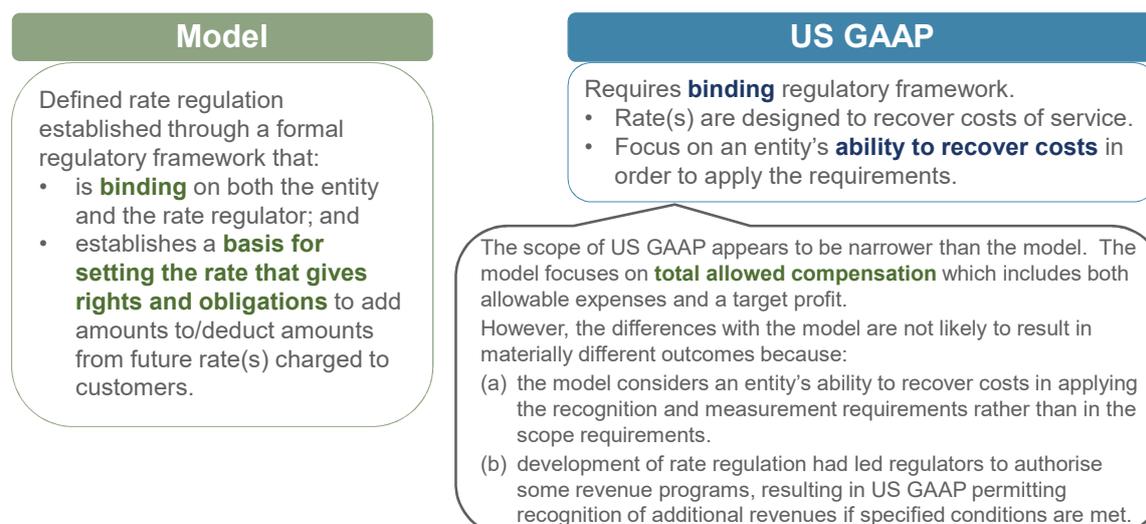
Many entities that currently recognise regulatory balances in their financial statements do so applying US GAAP or GAAP based on US GAAP.



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Scope

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Measurement

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Model

The model uses a **cash-flow-based measurement technique** to measure regulatory assets and regulatory liabilities by:

- estimating future cash flows (including the regulatory interest or return); and
- **discounting** those estimates of future cash flows using the **regulatory interest or return rate** as the discount rate unless that rate is not adequate.

US GAAP

Generally **prohibits** measurement of regulatory balances at **discounted present value**. The measurement is based on deferral or capitalisation of incurred costs as long as recovery is probable.

Discounting applies in some circumstances such as in case of abandonments or indirect disallowances.

In most cases, the regulatory interest or return rate would be adequate. As a result, the requirement for discounting in the model is not likely to result in materially different outcomes in most cases.



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Presentation and disclosure

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Model

The model requires regulatory items to be presented in **separate line items** in the primary financial statements.

The supplementary nature of the model means that the revenue or expense line items in the statement(s) of financial performance are **not** adjusted.

The model requires **disclosures** that help users to understand and assess the entity's financial performance, financial performance trends and assess the amounts, timing and uncertainty of (prospects for) its future cash flows.

US GAAP

Generally results in a '**net**' presentation in the statement(s) of financial performance (ie recoverable amounts of expenses are netted off against the respective expense line items; similarly, revenue line items are adjusted for advance billings).

Limited disclosure requirements.

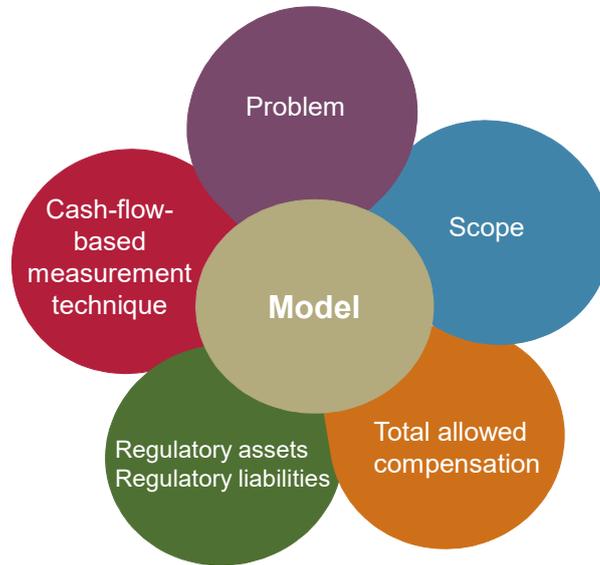
Differences with the model are likely to result in different presentation and disclosure outcomes.



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Top five takeaways

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Appendix

Solutions for numerical examples



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Solutions for numerical examples

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The following slides include the solutions to the numerical examples listed below.

Polling question	Topic of example
5	Regulatory asset—allowable input cost variance
6	Regulatory liability—pre-funding construction cost
8	Measurement—adequate regulatory interest/return rate
9	Measurement—inadequate regulatory interest/return rate

All solutions, except for Questions 8 and 9, assume that the effect of the time value of money is immaterial.



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Question 5

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Regulatory asset

- For the year X0, the total allowed compensation for services already supplied (CU1,100) exceeds the amount already charged to customers (CU1,000).
- As a result, Entity C recognises a regulatory asset reflecting its present right to add the amount of the variance (CU100) in the rate(s) to be charged to customers in year X1.

In CU	X0	X1	Total
Statement of financial performance			
Revenue	1,000	100	1,100
Regulatory income (expense)	100	(100)	-
Operating expenses	(1,100)	-	(1,100)
Profit / (loss)	-	-	-
Statement of financial position			
Regulatory asset	100	-	-



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Question 6

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Regulatory liability

- In year X0, the total allowed compensation for the water services supplied in the period using the upgraded network (ie nil because the upgraded network has not yet been placed into service) *is lower than* the amounts already charged to customers (CU500).
- As a result, Entity D recognises a regulatory liability reflecting its present obligation to deduct the pre-funded CU500 in the rate(s) to be charged to customers in years X3–X12.

In CU	X1	X2	X3	X4-X11	X12	Total
Statement of financial performance						
Revenue	500	-	50	...	50	1,000
Regulatory income / (expense)	(500)	-	50	...	50	-
Operating expenses (depreciation)	-	-	(100)	...	(100)	(1,000)
Profit / (loss)	-	-	-	...	-	-
Statement of financial position						
Regulatory liability	500	500	450	...	-	-
PPE (upgraded network)	-	1,000	900	...	-	-



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Question 8

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Measurement

- There is no indication that the regulatory interest or return rate is inadequate to compensate Entity F for the time value of money and risks inherent in the cash flows resulting from the regulatory asset.
- Accordingly, the regulatory asset is measured on the basis of estimated future cash flows, including the cash flows from the regulatory interest or return, discounted using the regulatory interest or return rate.

Calculation of the present value at X0—in CU						
Regulatory return rate = 10%	X0	X1	X2	X3	X4	X5
Future cash flows (CFs) - nominal	-	20	20	20	20	20
Future CFs - return	-	10	8	6	4	2
Total estimated future CFs	-	30	28	26	24	22
Discount factors (using rate of 10%)	-	0.91	0.83	0.75	0.68	0.62
Discounted CFs	100	27.3	23.1	19.5	16.4	13.7



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Question 8

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- Entity F recognises a regulatory asset reflecting its present right to add the amount of CU100 in the rate(s) to be charged to customers over five years X1–X5.

In CU	X0	X1	X2	X3	X4	X5	Total
Statement of financial performance							
Revenue	-	30	28	26	24	22	130
Regulatory income (expense)	100	(20)	(20)	(20)	(20)	(20)	-
Operating expenses	(100)	-	-	-	-	-	(100)
Profit / (loss)	-	10	8	6	4	2	30
Statement of financial position							
Regulatory asset	100	80	60	40	20	-	-
Breakdown of regulatory income (expense)							
Accretion of regulatory interest/return	-	10	8	6	4	2	30
Origination (recovery) of regulatory asset	100	(30)	(28)	(26)	(24)	(22)	(30)
Regulatory income (expense)	100	(20)	(20)	(20)	(20)	(20)	-

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Question 9

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Measurement

- The **regulatory interest or return rate of 0%** is inadequate to compensate Entity F for the time value of money and risks inherent in the cash flows resulting from the regulatory asset (3%).
- Accordingly, the regulatory asset is measured on the basis of estimated future cash flows, discounted using the **minimum rate of 3%**.

Calculation of the present value at X0—in CU						
Regulatory return rate = 0%	X0	X1	X2	X3	X4	X5
Future cash flows (CFs) - nominal	-	20	20	20	20	20
Total estimated future CFs	-	20	20	20	20	20
Discount factors (using rate of 3%)	-	0.97	0.94	0.92	0.89	0.86
Discounted CFs	91.6	19.4	18.9	18.3	17.8	17.2

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Question 9

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- Entity F recognises a regulatory asset reflecting its present right to add the amount of CU100 in the rate(s) to be charged to customers over five years X1–X5, measured at its present value of CU91.6 at the end of year X0.

In CU	X0	X1	X2	X3	X4	X5	Total
Statement of financial performance							
Revenue	-	20	20	20	20	20	100
Regulatory income (expense)	91.6	(17.2)	(17.8)	(18.3)	(18.9)	(19.4)	-
Operating expenses	(100)	-	-	-	-	-	(100)
Profit / (loss)	(8.4)	2.8	2.2	1.7	1.1	0.6	-
Statement of financial position							
Regulatory asset	91.6	74.4	56.6	38.3	19.4	-	-
Breakdown of regulatory income (expense)	X0	X1	X2	X3	X4	X5	Total
Accretion of regulatory interest/return	-	2.8	2.2	1.7	1.1	0.6	8.4
Origination (recovery) of regulatory asset	91.6	(20)	(20)	(20)	(20)	(20)	(8.4)
Regulatory income (expense)	91.6	(17.2)	(17.8)	(18.3)	(18.9)	(19.4)	-

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Get involved

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