



## Overview of Incentive Frameworks

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Victorian Gas Distribution Businesses Stakeholder Forum on Incentive Mechanisms,  
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- Purpose
  - Overview of incentive mechanism issues covered in the Issues Paper
  - Identify questions for discussion and debate in later session
- Scope
  - Current situation
  - Overview of economic and regulatory considerations
  - Overview of incentive schemes
  - Theoretically desirable attributes of an incentive framework
  - Questions for discussion and debate

- This forum reflects increased importance of effective engagement by gas distributors with their customers
- However some aspects of incentive design are complex
- Input is welcome but at the same time it is not expected that all stakeholders will necessarily have clear views on all issues

Incentive mechanism	Electricity distribution	Gas distribution in Vic (and other jurisdictions)
Efficiency Benefit sharing scheme (EBSS)	✓	✓
Capital Expenditure Sharing scheme (CESS)	✓	✗
Customer Service Incentives	✓	✗
		Note – there is Guaranteed Service Level (GLS) scheme
Other	Demand Management incentive, small scale incentive scheme	Unaccounted For Gas incentive



# Overview of economic and regulatory considerations

- Overarching objective of economic regulation of gas distributors is to promote economic efficiency for the long term interest of consumers.
- Focus on economic incentives to promote efficiency.
- Regulated energy network businesses are generally subject to an ex ante five year determination of prices (or revenues) by the AER
- This “simple” incentive design may create other incentives for gas distributors to behave inefficiently, for example
  - Uneven incentives for gas distributors to seek efficiencies through time
  - Incentives to cut costs may lead to undesirable reductions in service quality.
- Development of incentive regulation has introduced a range of more sophisticated incentive arrangements designed to address such problems and promote particular objectives

- Gas regulation model puts onus on gas distributors to propose incentive mechanisms
  - whereas these mechanisms are generally prescribed for electricity
- Rule 98 of the National Gas Rules (NGR) provides that
  - an access arrangement may include (or the AER may require it to include) one or more incentive mechanism to further encourage efficiency in the provision of services by the service provider
- AER has full discretion as to whether to approve the introduction of an incentive mechanism
  - National Electricity Rules by contrast include clearer objectives and criteria, and more prescriptive requirements

- Economic regulation literature stresses importance of holistic incentives
- Current incentive framework applying to gas distribution in Victoria (and interstate) is arguably not very holistic, with some common incentive schemes missing
- Incentive framework considerably less developed than for electricity distribution
- Note UK developments - need for increased innovation for faster productivity growth and to address environment challenges'
  - OFGEM (UK) has introduced innovation measures as part of its RIIO (Revenue = Incentives + Innovation + Outputs) model
  - Focused on cost reduction and environmental outcomes

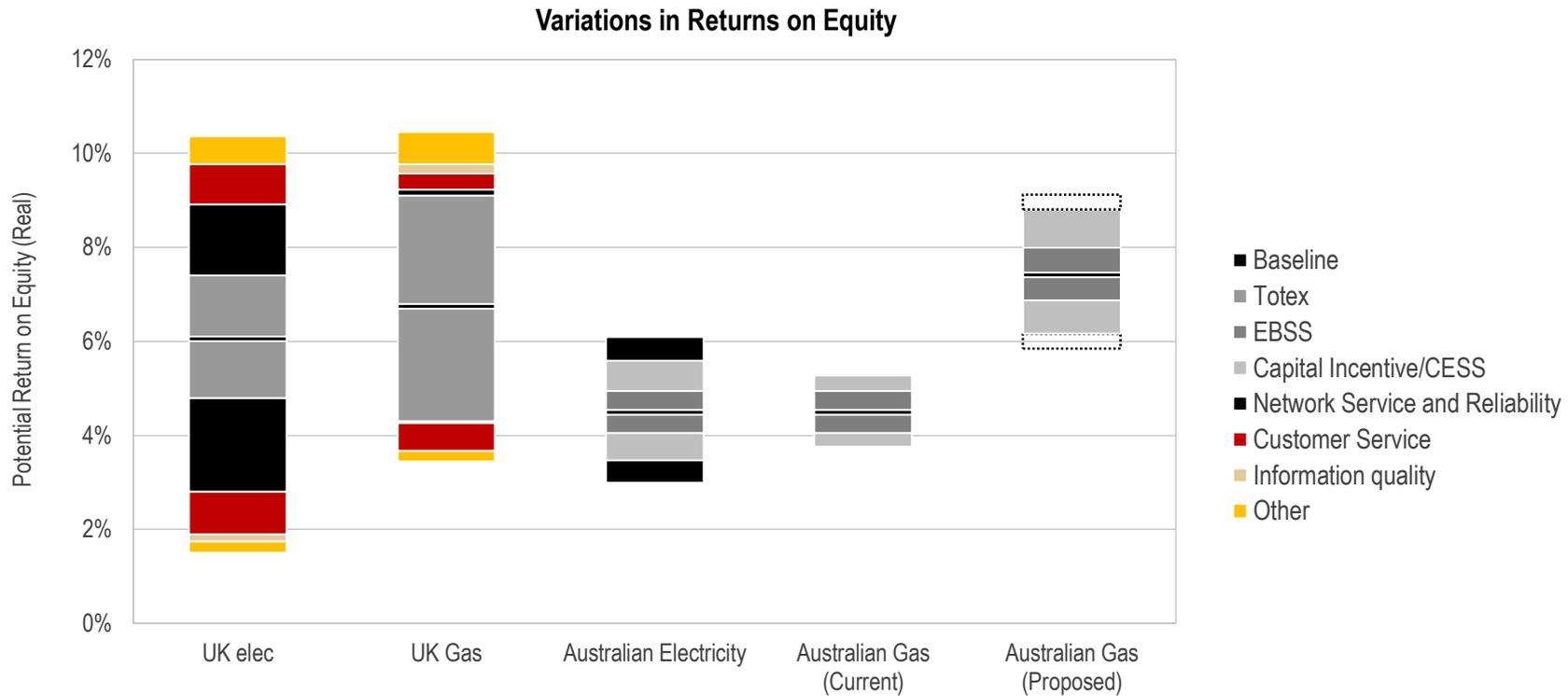
# Changes to incentive framework considered in Issues Paper

- Retaining EBSS, and whether incentives should be stronger?
- Merits of including new incentive schemes
  - A Capital Expenditure Sharing Scheme (CESS)
  - A Customer Service Incentive Scheme (CSIS)
  - A Network Innovation Scheme (NIS).

# How should AER assess proposed incentive mechanisms?

- Principal guidance to the AER are:
  - National Gas Objective (NGO)
    - Efficiency for long term benefit of consumers in regard to **price, reliability** and **quality**
  - Certain of the Revenue and Pricing Principals (RPPs) in the National Gas Law
- Incentives should not compromise gas safety
- Given AER discretion it should adopt good regulatory practice
- AER should exercise discretion in a way that is likely to promote the NGO to the greatest degree.

- Regulatory precedents in Australia and other comparable jurisdictions (e.g. UK):
  - Electricity and gas distribution incentives
  - Innovation incentives in UK
- Specific circumstances of the Victorian gas distributors
- Ultimately any proposed incentive mechanisms should complement and reinforce each other in a way that promotes NGO.



- UK (RIIO): a company that responds well in incentive can earn double digit ROE, whereas a company that does not will earn low single digits
- Australia: actual returns are tightly clustered around the allowed return



# Overview of Incentive Schemes

Incentivises a gas distributor to pursue continuous operating expenditure efficiency improvements over time and to share the benefits of these improvements fairly with consumers

- Efficiencies shared 30/70 between gas distributor and customers
- Long standing feature of network regulation
- Works well
- Efficiency sharing has not been reviewed since this scheme commenced in early 2000's

Incentivises a gas distributor to pursue continuous capital expenditure efficiency improvements over time and to share the benefits of these improvements fairly with consumers, and also balance incentives for operating cost efficiency (EBSS)

- Has been problematic in the past
  - AER concerns over energy distributors' incentive for deferral of capital spend
  - AER has now developed a deferred capex adjustment mechanism for electricity distribution to address this concern
- CESS now being introduced into all recent Electricity Distribution regulatory determinations

A system of targets, incentives and penalties designed to ensure a gas distributor maintains or improves customer service standards

- Objectives
  - Balances incentives for cost reduction
  - If well designed can encourage gas distributor to optimise service quality (not simply meet regulator determined targets)
- Electricity (Service Target Performance Incentive Scheme) (STPIS) has four components - “customer service”, “reliability of supply”, “quality of supply” components and the “guaranteed service levels” (GSL)
- A gas distributor’s revenue is increased (or decreased) based on changes in its service performance for each component

- OFGEM has introduced innovation measures as part of its RIIO model. Scheme has three elements
  - A Network Innovation allowance (NIA)
    - to fund small-scale innovation projects
  - A Network Innovation Competition (NIC)
    - annual competition to fund selected flagship innovative projects that would deliver low carbon and environmental benefits
  - An innovation roll-out mechanism (IRM)
    - fund the rollout of proven innovations that contribute to delivering low carbon and environmental benefits.



# **Theoretically desirable attributes of an incentive framework**

# Theoretically desirable attributes of an incentive framework

1. Strike balance between incentives for gas distributor to be efficient and passing efficiency gains back to customers.
2. Promote even incentives for gas distributor to achieve efficiency gains in each year of a regulatory period.
  - Simple CPI-X regulation means incentives for efficiency are stronger at the beginning of the regulatory period and decline over time
  - EBSS and CESS implemented in electricity for this reason
3. Provide balanced incentives for the gas distributor to choose an efficient mix of capital and operating cost inputs.
  - Ideally regulation should minimise distortion to business decisions on the capex vs opex

4. Provide a balance between incentives for cost reduction and maintaining or improving service quality.
  - If incentive for cost reduction is strong then risk of gas distributor allowing service quality to decline
  - Service quality incentives are very common
  
5. Provide incentives to the gas distributor to optimise service quality if appropriate
  - May be desirable for the gas distributor to have incentives to find service quality customers want and take advantage of new opportunities
  - Example – if telephone response time can be reduced and new technology allows this at low cost, then a good incentive design should encourage service improvement

## 6. Set the power of incentives to balance the need to reward managerial effort while minimising risks.

- Incentives need to be powerful enough to reward gas distributor for managerial effort
- But literature highlights risks if incentives are too powerful e.g.
  - Excessive risk on the gas distributor
  - Potential for high profits
  - Incentives to reduce service or take excessive risk

## 7. Provide appropriate incentives for innovation

- OFGEM identified concerns with the UK regulatory regime:
  - *“In terms of the quantum of innovation, network companies may be slow to deliver the amount required, or deliver within the required timescales, for a variety of reasons”*
- OFGEM considered their previous incentive framework - which is similar to Australia's - as inadequate for promoting the desired rate of innovation given challenges facing the industry



Following slides assesses the current situation against the theoretically desirable attributes and identifies the potential solutions

# Even incentives through time?

## Attribute

- Should be even incentives for gas distributors to achieve efficiency gains in each year of a regulatory period



## Assessment

- EBSS in place - designed to ensure even incentives for Opex
- Uneven incentives for Capex efficiency



## Potential Solution

- Retain current EBSS
- Introduce CESS

## Attribute

- Should balance incentives for gas distributor to choose an efficient mix of Capex and Opex



## Assessment

- Gas distributors currently have uneven incentives to pursue opex and capex efficiency – as there is no capex incentive scheme



## Potential Solution

- Introduce CESS
- Set CESS incentive power consistently with EBSS

# Balance incentives for cost reduction and maintaining service quality?

## Attribute

- Incentive framework should balance incentives for cost reduction and for maintaining or improving service quality.

## Assessment

- GSL scheme provides some balance to incentives for cost reduction
- GSL may not be able to cover all areas of service that are important
- If incentives for cost reduction are stronger in future (with introduction of CESS) then the risk to service quality may increase.

## Potential Solution

- Introduce a CSIS if GSL is inadequate or incentives for costs reduction are stronger following introduction of CESS.

## Attribute

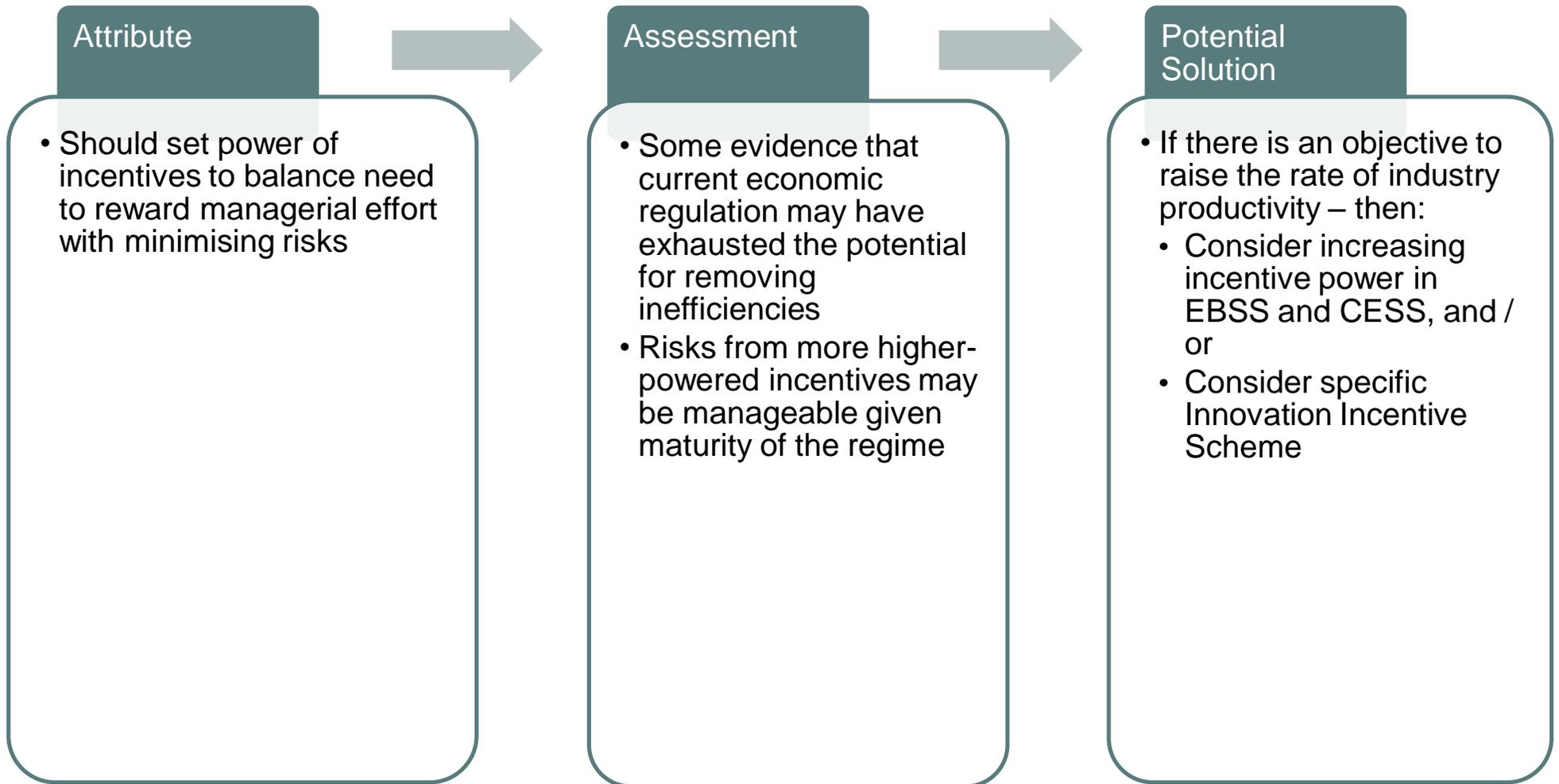
- Incentive framework should provide incentives to gas distributor to optimise service quality if there are material opportunities to do so.

## Assessment

- No incentive on gas distributor to optimise service quality
- Gas distributors to undertake further work

## Potential Solution

- Introduce a CSIS if optimising service standards is in the long term interest of consumers



# Provide appropriate incentives for innovation

## Attribute

- Innovation is an important aspect of efficiency
- Framework should provide appropriate incentives for innovation

## Assessment

- Some evidence that gas distributors are operating at the efficient frontier
- Further efficiency gains may require a greater focus on innovation
- CESS and EBSS may not provide sufficient incentives to undertake riskier innovation
- OFGEM view that specific innovation schemes are required

## Potential Solution

- Consider specific Innovation Incentive Scheme



## Questions for discussion and debate

- Would introducing a CESS be desirable and what preconditions are there for introducing one?
  - Effective means for AER to limit inefficient deferral of capital expenditure?
  - A workable service quality incentive that balances incentives for cost reduction?
- Would introducing a CSIS be desirable to encourage optimising of service quality? (in addition to balancing incentives for cost reduction)
  - How do customers feel about service quality provided by the Victorian gas distributors?
- How could a CSIS aimed at balancing incentives for cost reduction be designed ?

- Is a new regulatory incentive required for the gas distributors to pursue innovation?
  - Are the gas distributors operating at close to optimal efficiency, and is the distributors' rate of product improvement converging on the rate of industry wide technological change?
- Would consumers benefit from stronger incentives? Are the risks of stronger incentives manageable ?
- **Other questions?**