

Catherine Mitchell

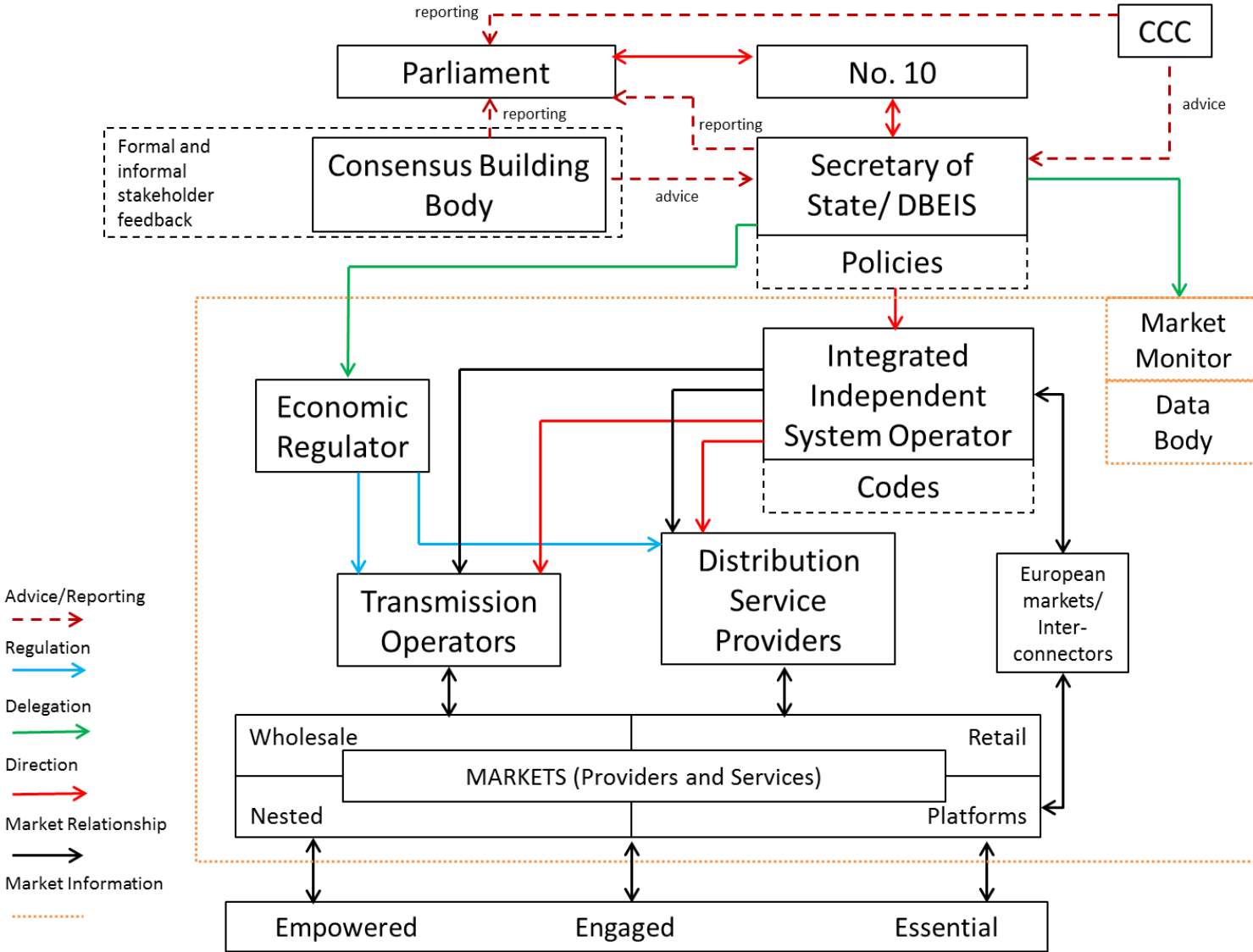
University of Exeter



New Thinking For Energy



Fit-for-Purpose GB Energy Governance Framework



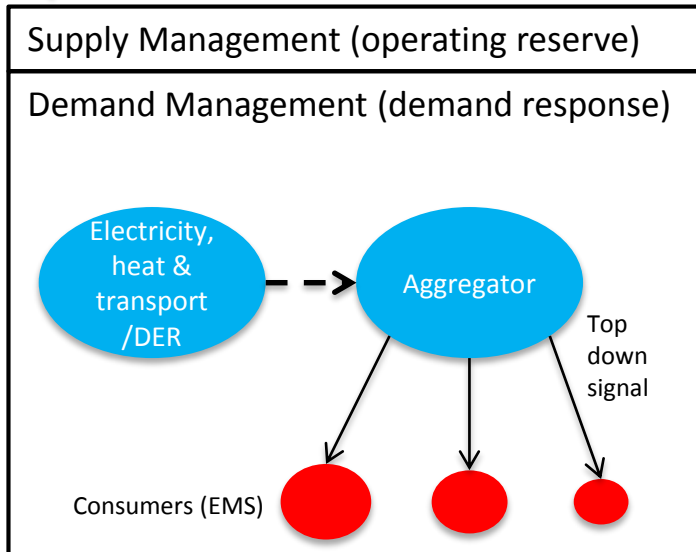
Within the current system

- Can have local energy markets in some ways
 - Platforms are allowing a type of local markets to exist in some forms
 - Platform acts effectively as a customer in wholesale market or provider of DSR
 - DNOs to DSOs
 - Thinking about local system services
- Issues
 - Limited choice for customers (whether provider or customer demand)
 - Limited co-ordination
 - Limited values
 - Still narrow <http://projects.exeter.ac.uk/igov/new-thinking-transformational-regulation-comparing-the-ny-rev-riio/>

No local markets in terms of co-ordination of energy and services in local area

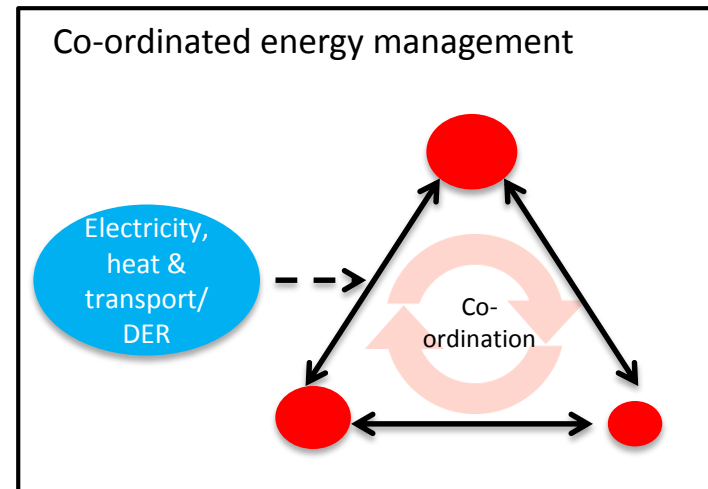
Supply-side

Demand-side



Demand Management from supply-side

- Actors do not communicate
 - No control feedback
- Cluster of single actor best effort
- Limited control ability



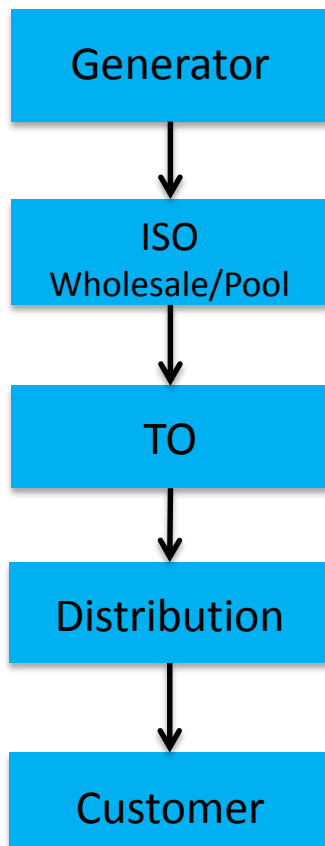
Demand Management from demand-side

- Actors communicate to coordinate
 - control feedback
- Community best effort
- Higher control ability

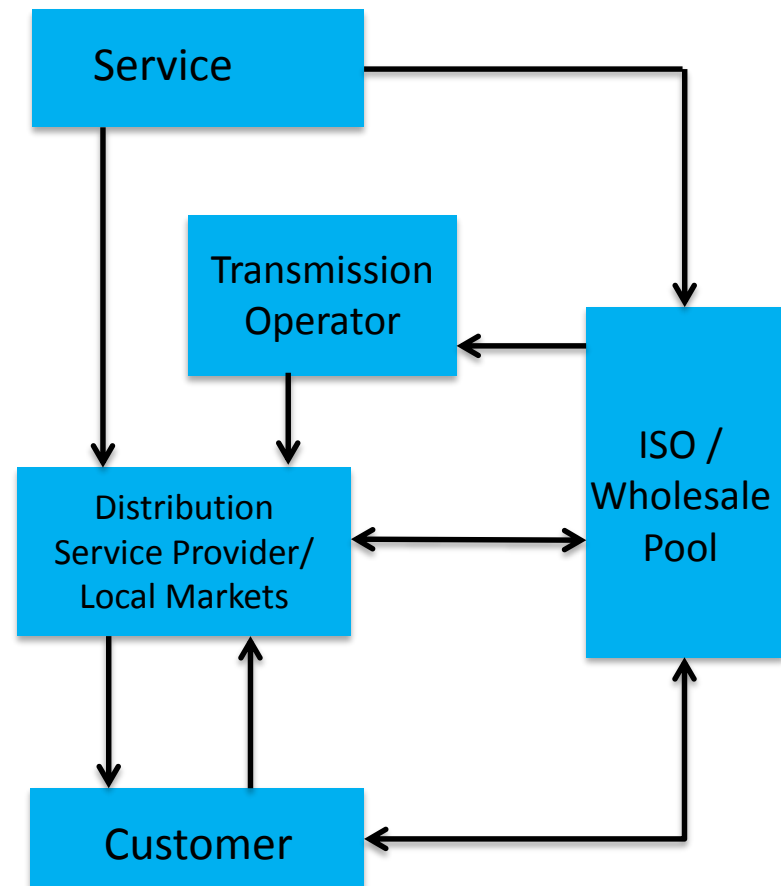
Source: adapted from Vereschae, Kato, Kawashima & Matsuyam (2015) <http://vision.kuee.kyoto-u.ac.jp/japanese/happyou/pdf/Rodrigo ASN 2015.pdf>

New value thinking – being able to buy and sell where customer wants with co-ordination

Traditional



NY REV

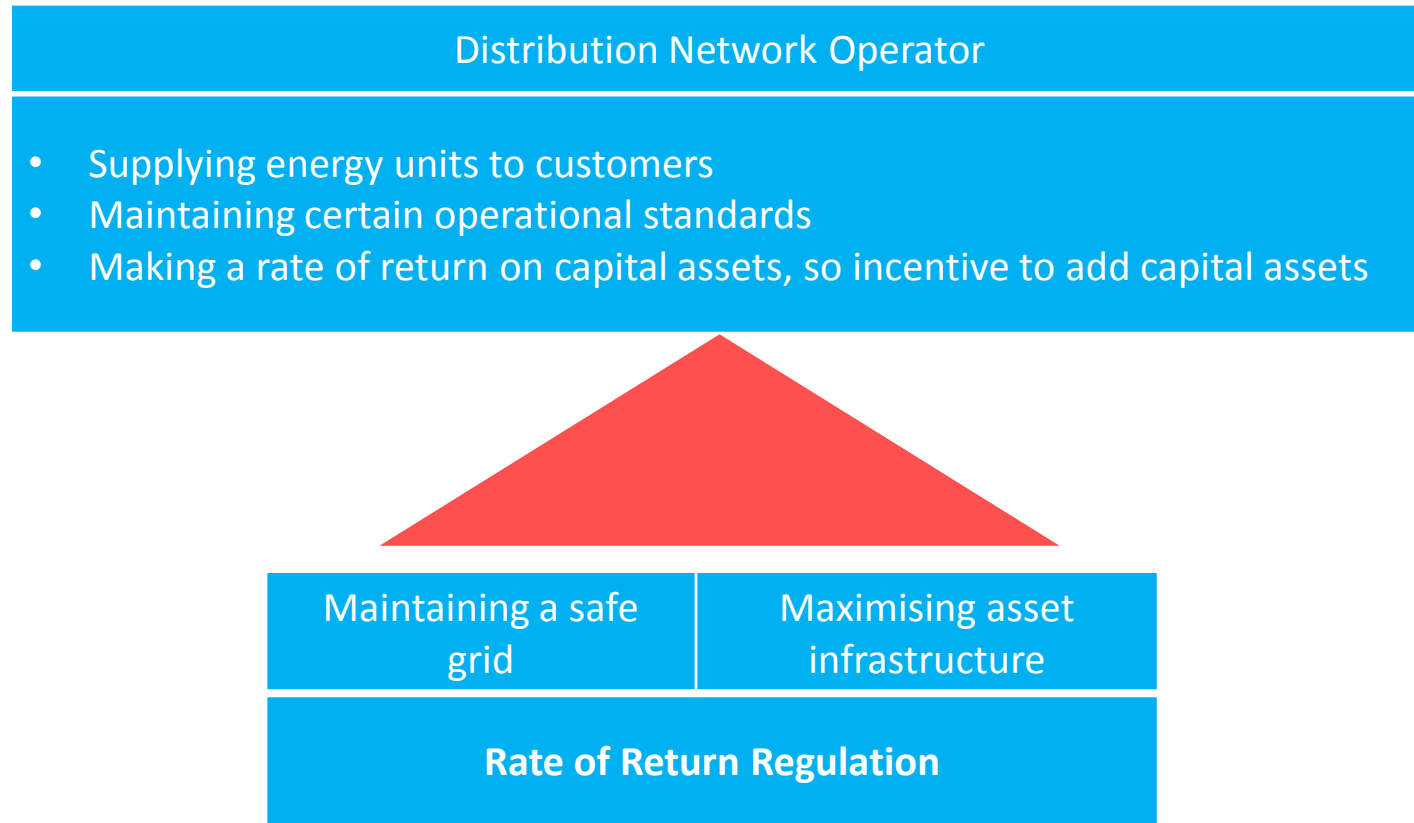


Question

- Does customer choice (both providers of service and end-users of demand) matter at the distribution level? And if so, does co-ordination of energy and services matter?

Additional Slides

What is a traditional network utility?



Source: Adapted from CSIRO and Energy Networks Association 2015, Electricity Network Transformation Roadmap: Interim Program Report

What is a Distribution Service Provider?

Distribution Service Provider

- Integrating all types of DER via increased system and energy efficiency
- Enabling customers to provide and be paid for services to D-grid
- Facilitating services between 3rd party providers and customers
- Reveal value
- Becoming 'active'

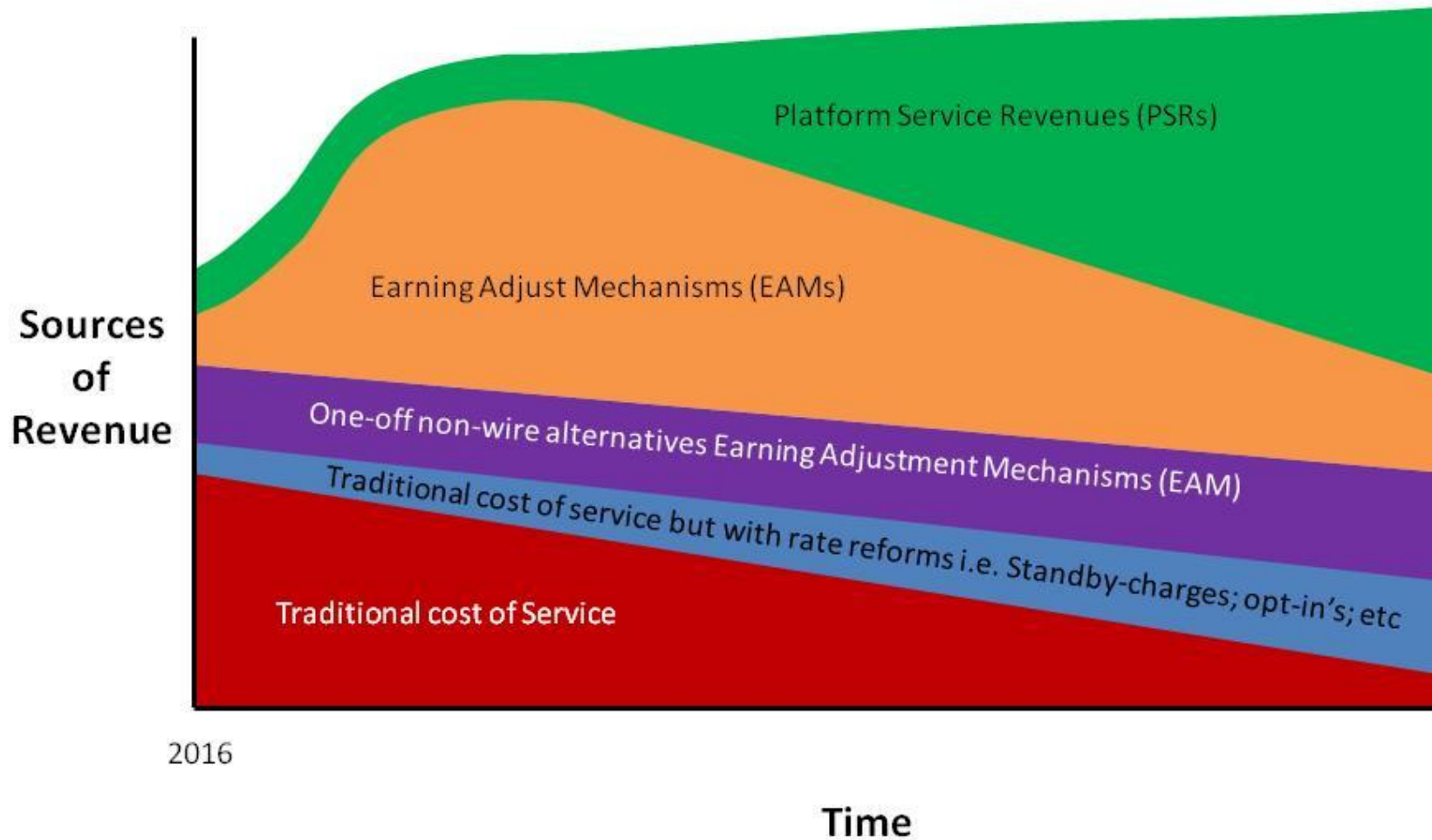


Maintaining a safe & resilient grid	Increasing system efficiency	Optimising infrastructure	Support/enable public policies	Enabling highly reliable & resilient energy services	Bring forward cost-effective ways of achieving outcomes	Provide transparent data
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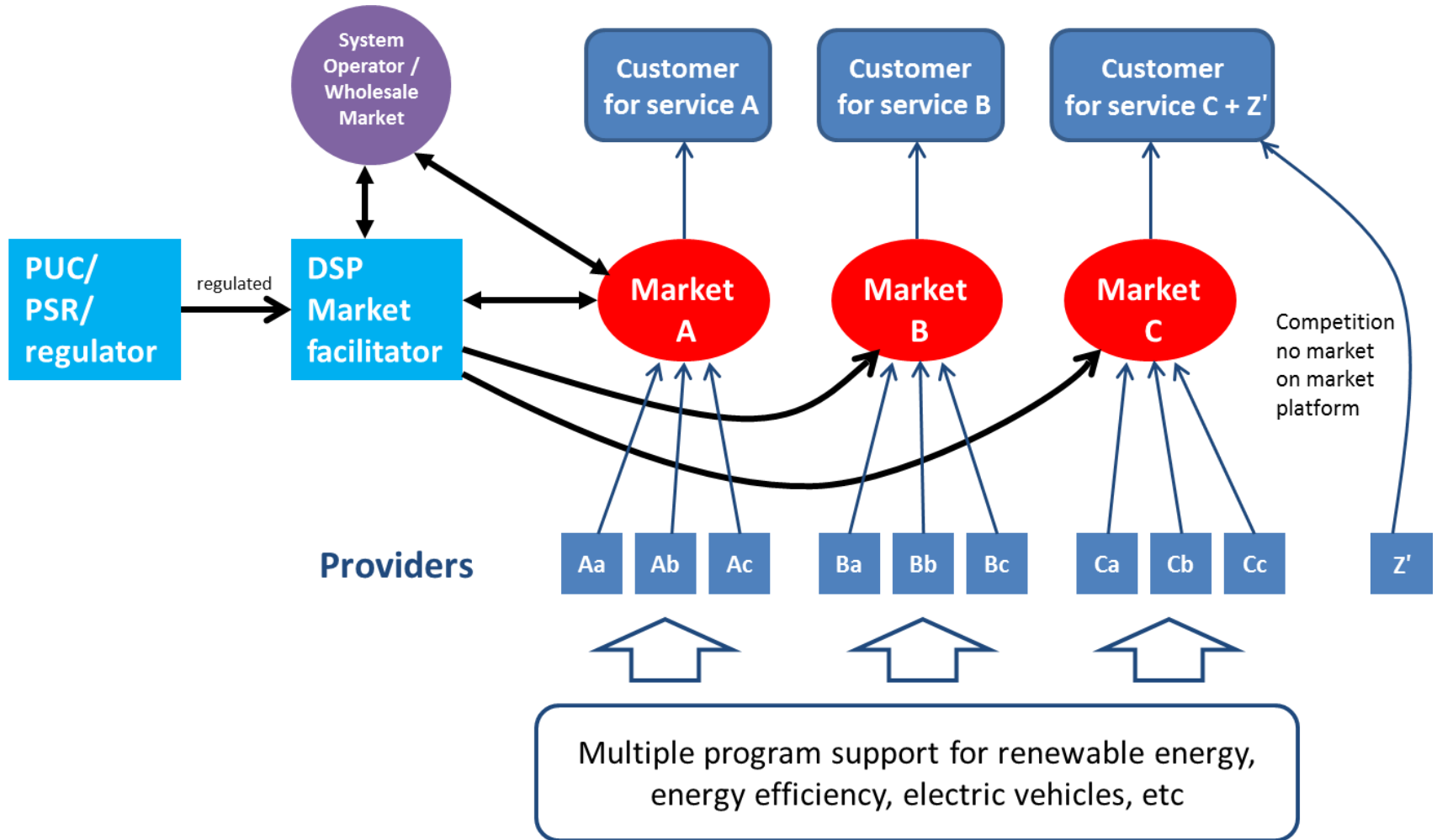
Higher proportion of Performance Based Regulation to Revenue

Source: Adapted from CSIRO and Energy Networks Association 2015, Electricity Network Transformation Roadmap: Interim Program Report

Sources of Utility Revenue within NY REV



DSP Markets



References

- See workshop paper
- Slide pack for DSPs (updated November 2016)
<http://projects.exeter.ac.uk/igov/new-thinking-distribution-service-providers/>
- 2016 blog about NY REV which includes links to 2014 and 2015 blogs and NY REV reports
<http://projects.exeter.ac.uk/igov/us-regulatory-reform-ny-utility-transformation/>