Local Generation Network Credits

Presentation slides and summary of discussion

Discussion Group
AEMC's offices
29 February 2016

Structure of the session

Recap of the rule change request

Group discussion:

- **Your experience setting up embedded generation**
- **Issues raised by the rule change request**

Next steps in the project

List of participating organisations

Baker & McKenzie
Community Power Energy
Ethnic Communities' Council of NSW
Go Energy
Institute for Sustainable Futures, UTS
Marrickville City Council
Mirvac
Property Council of Australia
Southern Sydney Regional Organisation of Councils
Willoughby City Council
World Wildlife Fund

Recap of rule change request

The rule change request

"[T]he incentives for local generation in the current Rules either **do not provide adequate recognition of the benefits** that local generation can provide, and/or **may not be readily accessible to small-scale local generators** […]

To address these gaps in the current Rules with regard to local generation this paper proposes that a Rule change be made that requires distribution businesses to implement a local generation network credit (LGNC) […]

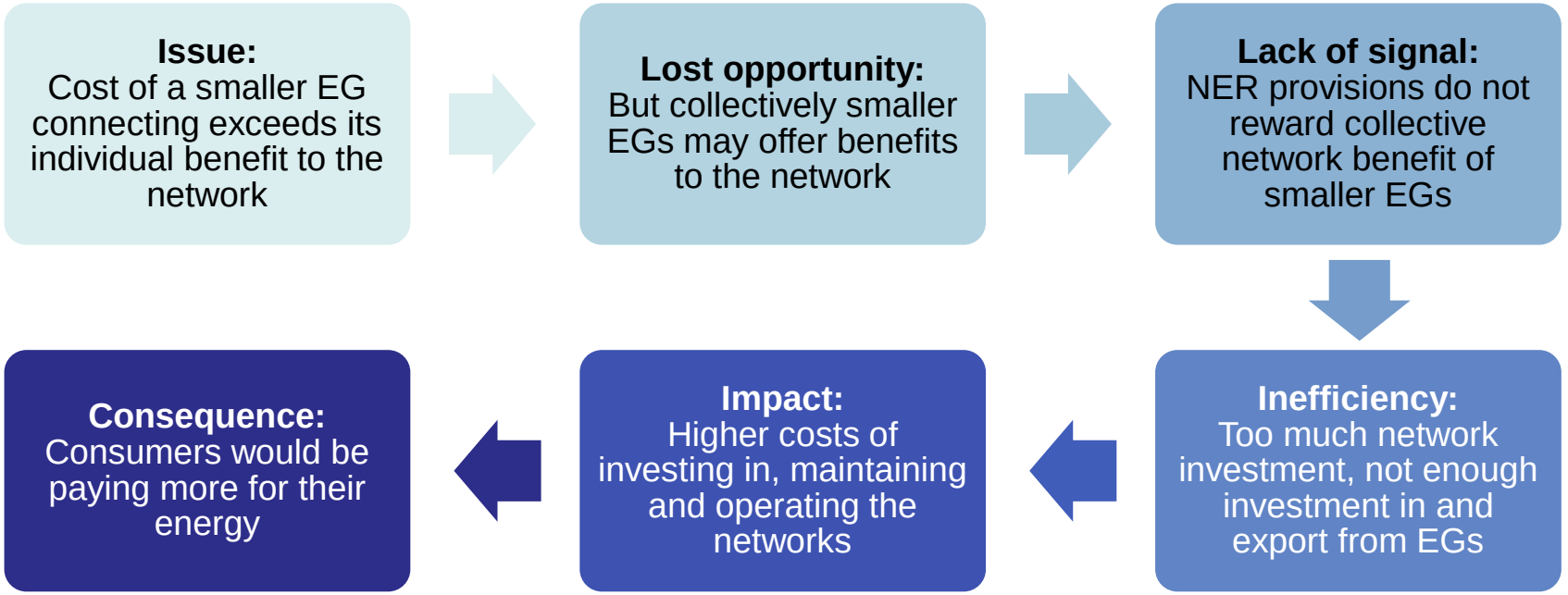
It reflects **the long-term economic benefits** (in the form of capacity support and avoided energy transportation costs) **that the export of energy from a local generator provides to a distribution business**, including reduced or avoided transmission costs that would otherwise be passed through to end users."

- The rule change request, pp.1-2

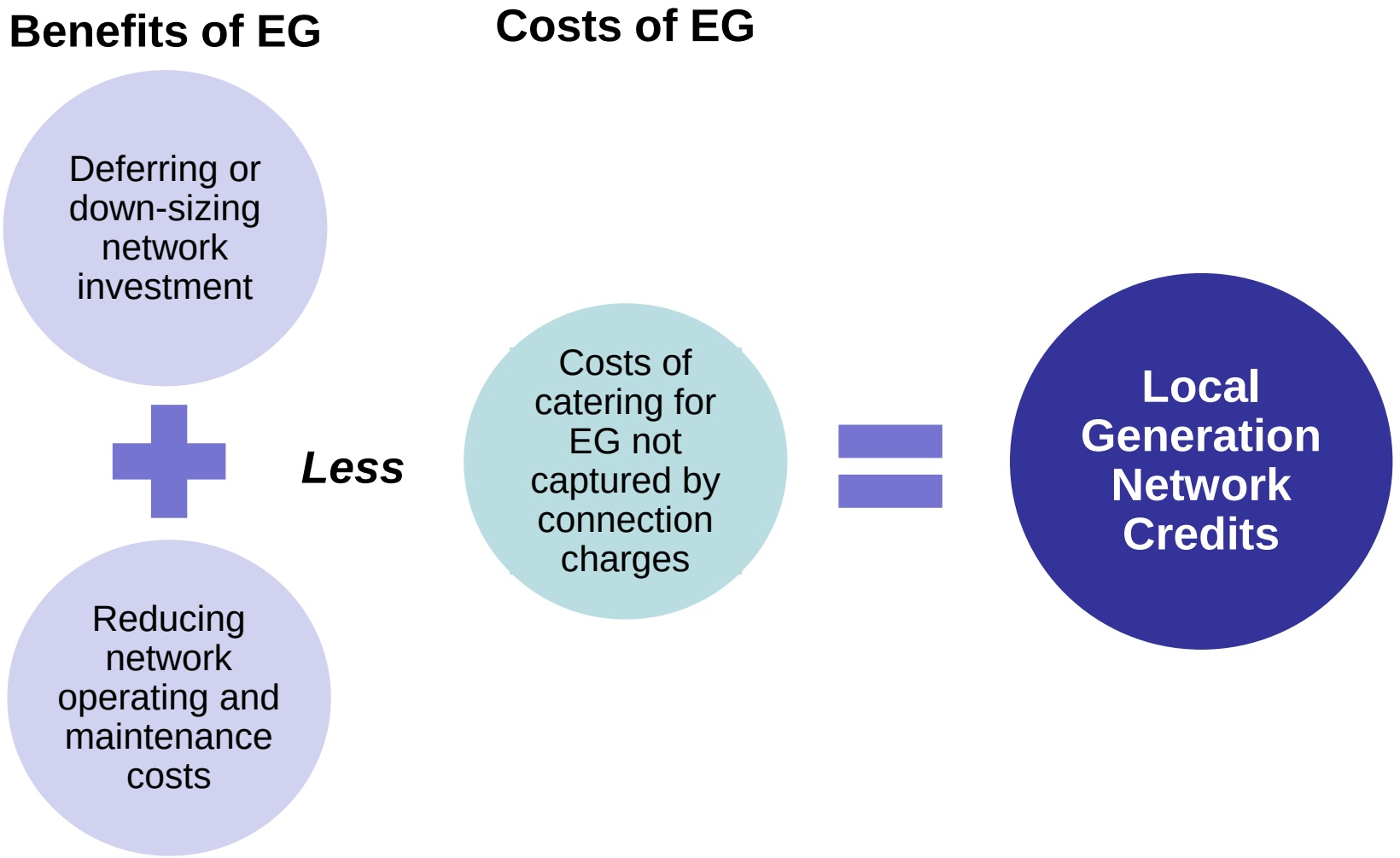
The rule change is about…

The **long-term benefits** provided by embedded generators (EGs) to networks in the form of deferred or down-sized future network investment and/or reduced operating costs

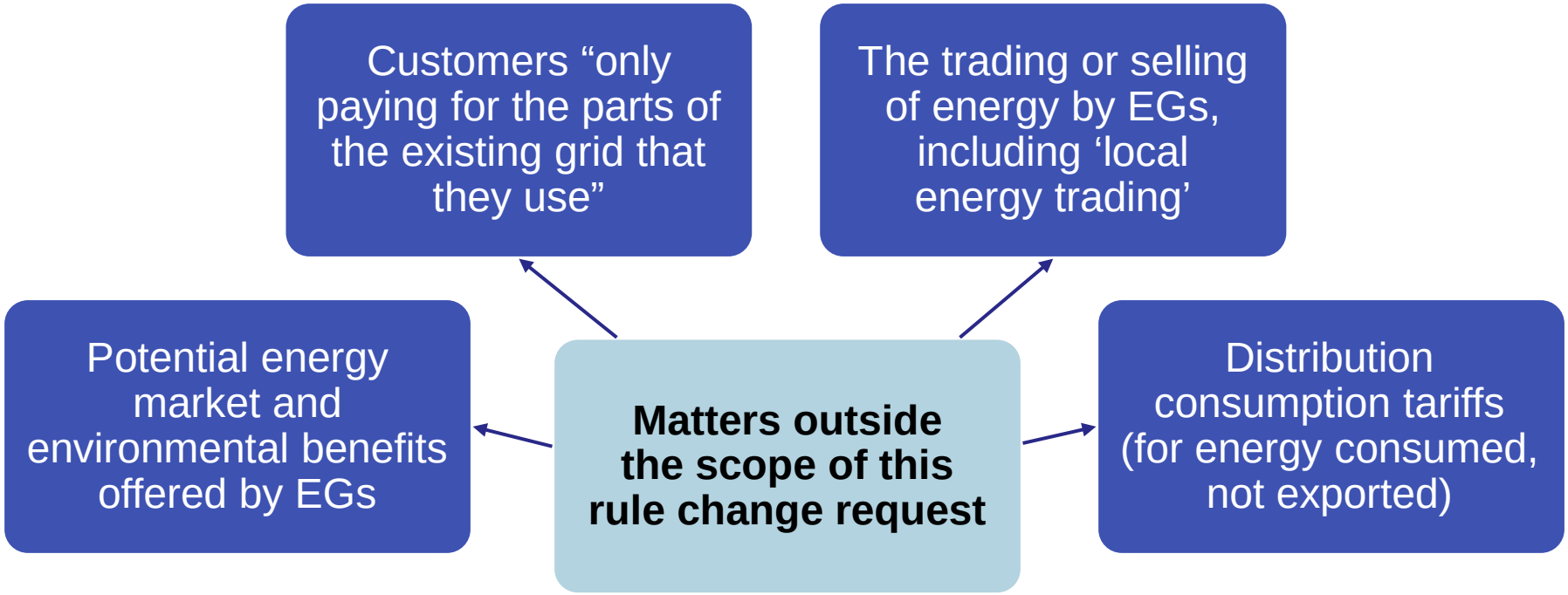
Key question: Are **small EGs** compensated efficiently for any such benefits?



Proposed solution



The rule change is **not** about…



The rule change is only about the **forward-looking benefits** that EG might offer by way of **reduced future network costs**

Only paying for the part of the grid you use?

Generators

Pay to connect, do not pay to **use** the grid → **Clearly not applicable**

Consumers

How to establish that they use locally generated electricity?

↓

Not clear there are overall savings for consumers (ie does it meet the NEO?)

↓

Ultimately an issue for consumption tariffs, not generation credits

Not part of the rule change request

Summary of discussion

Benefits of the proposal:

- Participants considered that the proposal could enable a proliferation of new business models that are currently not available, and would broaden customer choice for delivery of electricity
- One of the current obstacles (although outside the rule change request itself) is that retailers are not seen to be offering tariffs that would allow 'netting-off' of locally generation from consumed energy
- Participants also considered the proposal would allow greater utilisation of existing network assets and mitigate grid defection.
- It was considered that, if paying LGNCs lead to more consumers staying on the grid than would otherwise be the case, average electricity prices would be lower than in the alternative scenario as the network costs would be recovered from a larger number of consumers
- Participants considered that, faced with the threat of grid defection, some network businesses are responding with higher fixed charges in their Tariff Structure Statements
- Some participants considered that mandating the payment of LGNCs could have a 'side benefit' of starting to shift the culture of network businesses with regard to non-network solutions

Scope of the rule change request:

- There was extensive debate about whether the proposal could be interpreted as enabling consumers to "only pay for the part of the network that they use". AEMC staff made it clear that the proposal is for a payment to embedded generators to reflect avoided costs of *future* investment in the network. The question of what share of the costs of the *existing* network should a consumer be liable for is a matter for distribution pricing, and was considered in detail in the AEMC's recent rule change on the matter

Group discussion

What are **your experiences** developing and/or connecting embedded generators to the grid?

Did you make use of current NER provisions (network planning reports, RIT-D, network support payments) and, if so, how effective were they?

Summary of discussion

Experiences accessing current NER provisions:

- Participants said that small-scale embedded generators from the community energy, local government and property holdings sectors have found it difficult to negotiate with network businesses on providing demand response services. Their projects (eg 100kW solar PV) are typically not large enough to enable them to negotiate a network support payment with a distributor.
- Due to the reliability standards imposed on them, DNSPs have required a guarantee of 100% availability of the asset when needed, but this is was not possible for some embedded generators
- One participant experienced export restrictions on their embedded generator and faced an additional cost from the DNSP, ostensibly to compensate for a higher risk of a fault occurring on the network
- It was considered that, since networks are monopsonistic buyers of network support payments, they are able to exploit this market power, which is seen not to be adequately regulated
- It was noted that, without a payment such as LGNCs, the investment case in some embedded generation projects – be it community-based or on commercial property – did not hold up. In some cases, participants said they owned under-utilised generators

Further discussion

Current provisions in the NER

Network planning

- The distribution network annual planning and expansion framework
- Regulatory Investment Tests for Distribution and Transmission (RIT-D/T)

Remunerating generators

- Network support payments and avoided transmission use of system charges
- Cost-reflective distribution network tariffs

Incentivising network businesses

- Capital Expenditure & Efficiency Benefit Sharing Schemes
- Demand Management Incentive Scheme & Innovation Allowance

Connection frameworks for embedded generators & small generation aggregators

Technology neutrality

Any solution should, ideally, be as technologically neutral as possible

Neutrality across different forms of different EG

Different types of EG that offer the same long-term networks benefits should, ideally, be treated the same way under any potential change to the NER

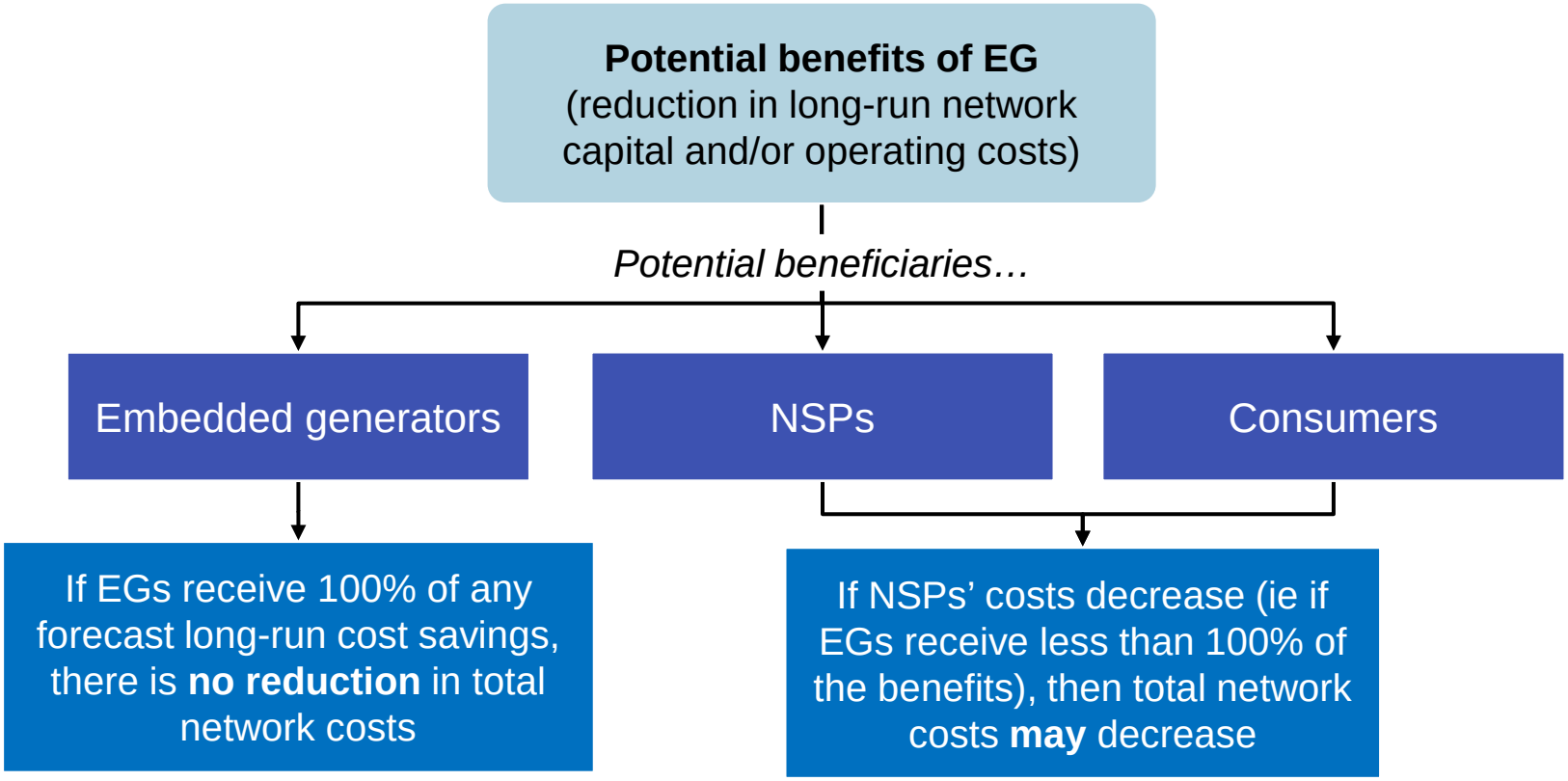
Key Issue:
Different forms of EG likely to offer different levels of network benefits, so how should any solution reflect that?

Neutrality across different forms of non-network solutions

Different types of non-network solutions that offer the same long-run network cost savings should also, ideally, be treated the same way under any Rule change

Key Issue:
Options that favour one type of technology can lead to inefficient investment

Allocation of benefits



Allocating 100% of forecast benefits to EGs is unlikely to result in overall savings for consumers – so what would be an appropriate allocation?

Questions for discussion

1. Given that many of the Power of Choice reforms are still being implemented is it feasible to determine if there is an issue with the NER **at this time**?

2. Does the **network planning framework** provide suppliers of non-network solutions with enough information on potential opportunities? If not, what more is needed?

3. Do the current **RIT-D** and/or **RIT-T** thresholds mean that they are not useful tools for small-scale EGs?

4. Since non-network solutions – such as controlled load – can offer potentially equivalent benefits to EGs, how best to address the issue in the rule change request without undermining the **technology neutrality** of the NER?

5. What is the appropriate allocation of long-term network cost savings between **NSPs** (both distribution and transmission), **providers of non-network solutions** (including EGs) and **consumers**?

Summary of discussion

Is there a gap in the NER?

- It was noted that a lack of awareness and expertise of the NER provisions by proponents of non-network solutions were a barrier to proposing them as alternatives to investment in the network
- Participants considered that, since the LGNC proposal comes from consumers and new industry actors, it reflects the challenges that these parties are facing, and which are not addressed by the mechanisms currently in place (it was noted that a number of mechanisms are still being implemented, such as cost-reflective distribution pricing and the demand management incentive scheme)
- Some participants considered the timeframe for implementation of the demand management incentive scheme and innovation allowance to be too long to address their needs (for example with regard to commitments to reduce carbon emissions by 2020)
- Some participants suggested that it may be appropriate to phase-in the implementation of LGNCs, reflecting the perceived difficulty of the methodology involved

Allocation of benefits:

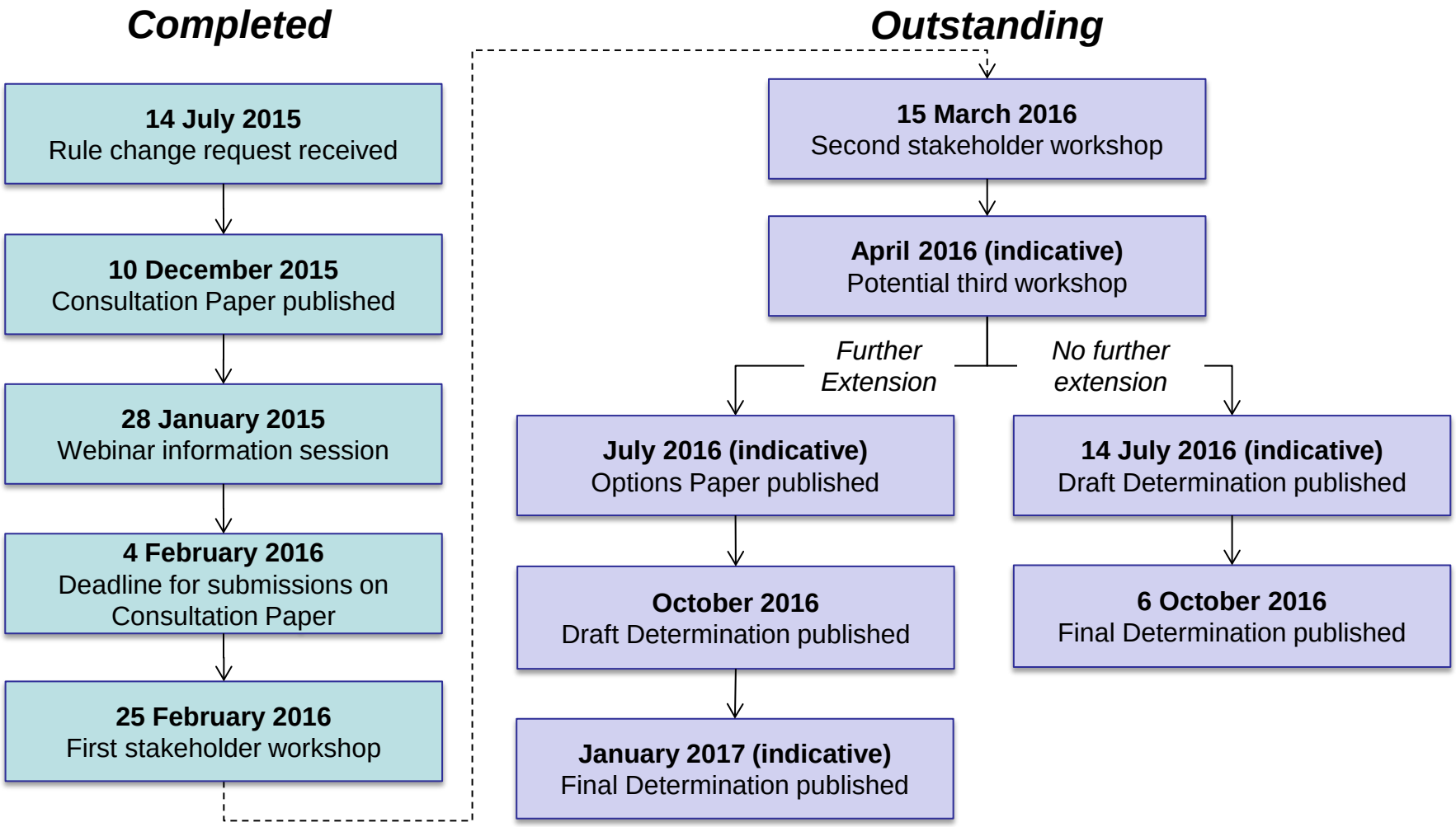
- Some participants suggested that the proposed allocation of 100% of the benefits to embedded generators could be reconsidered, and stated that they are not opposed to a 'benefit sharing' model where savings are shared between embedded generators and consumers

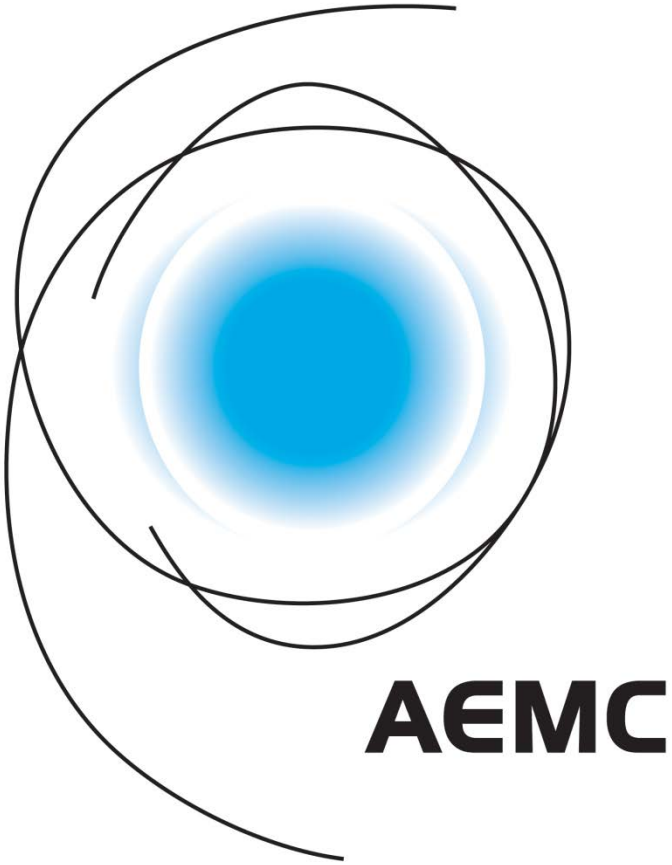
Additional comments:

- A question was raised as to whether the payment of LGNCs and/or the methodology for calculating them may depend on embedded generators having advanced meters
- It was noted that, given past investment in the network, there may be only pockets of the network that need augmenting to meet future demand and, as a result, LGNCs would have negligible value in many cases

What's next?

The rule change process

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