

BUILDING A LEVEL PLAYING FIELD FOR LOCAL ENERGY

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Presentation Clean Energy Summit
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OVERVIEW

1. Context
2. Valuing local energy: the concepts
3. The project: facilitating local network charges and virtual net metering



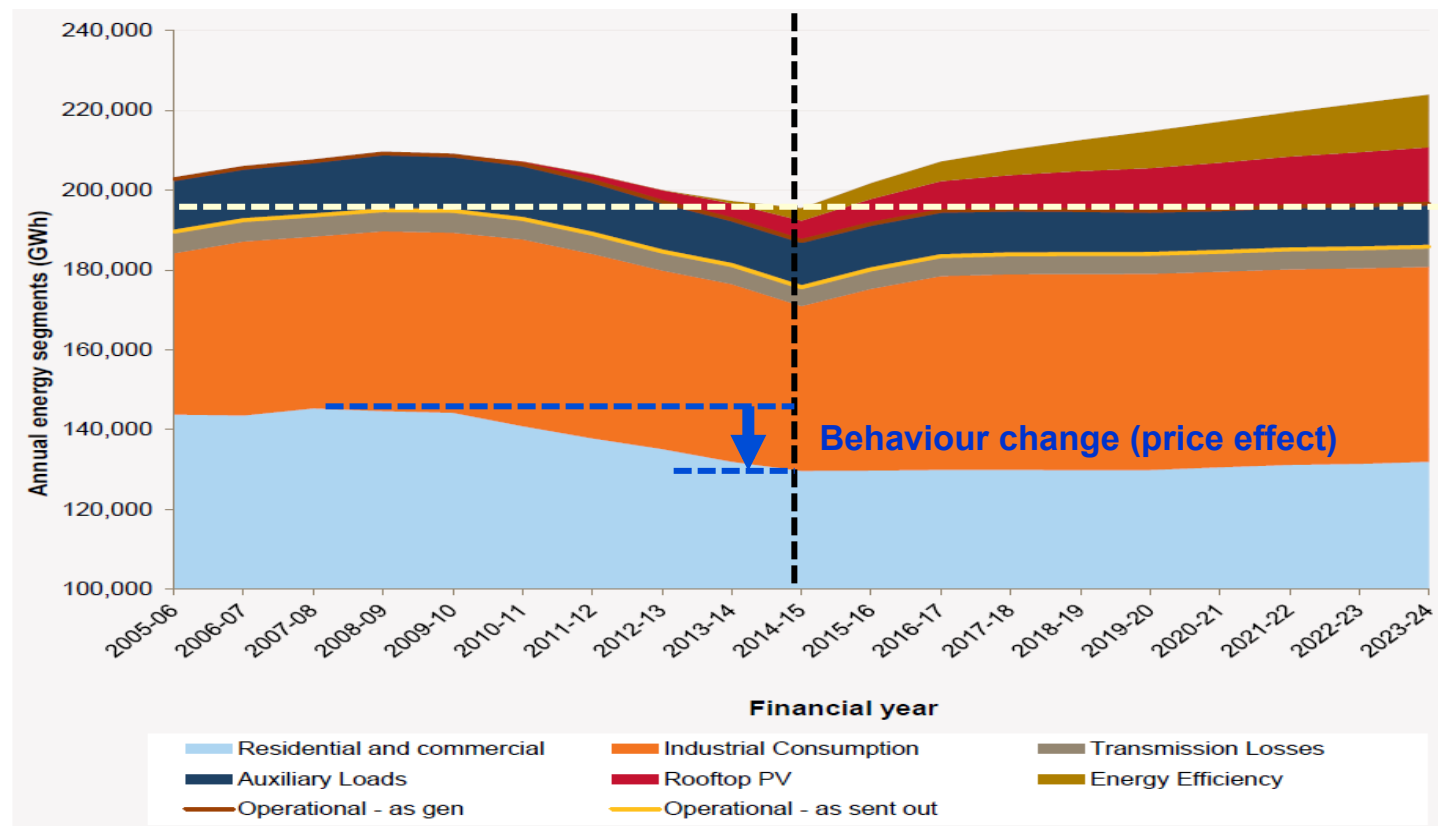
CONTEXT

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HISTORIC POINT OF TRANSFORMATION

Centralised electricity supply falling, already peaked?

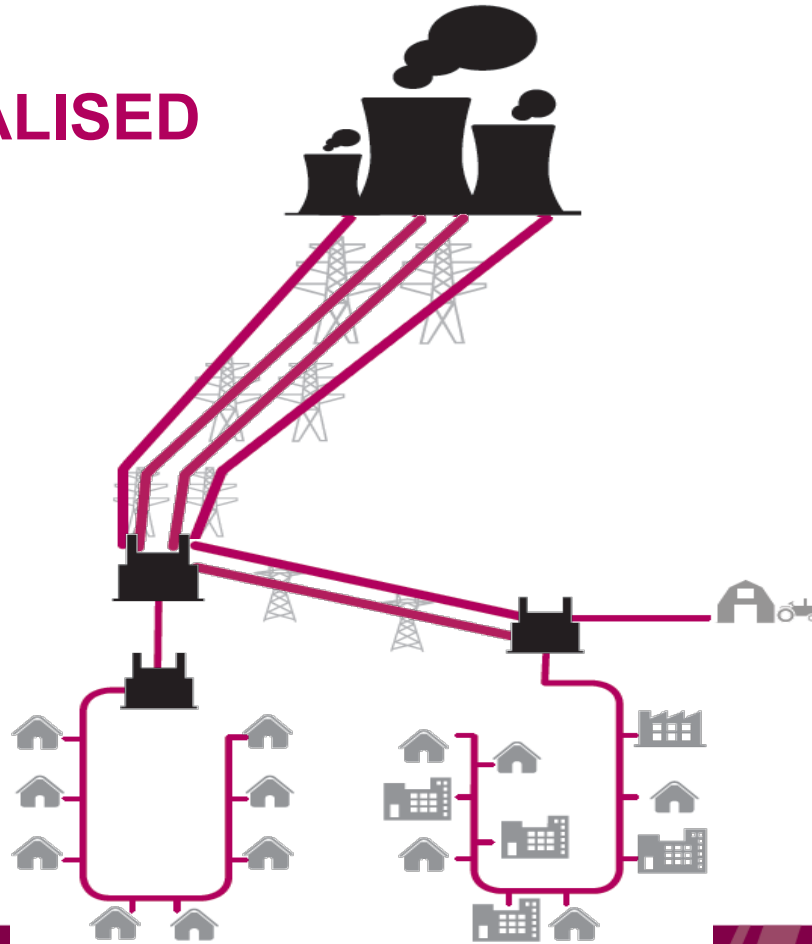


Energy efficiency
Rooftop solar PV

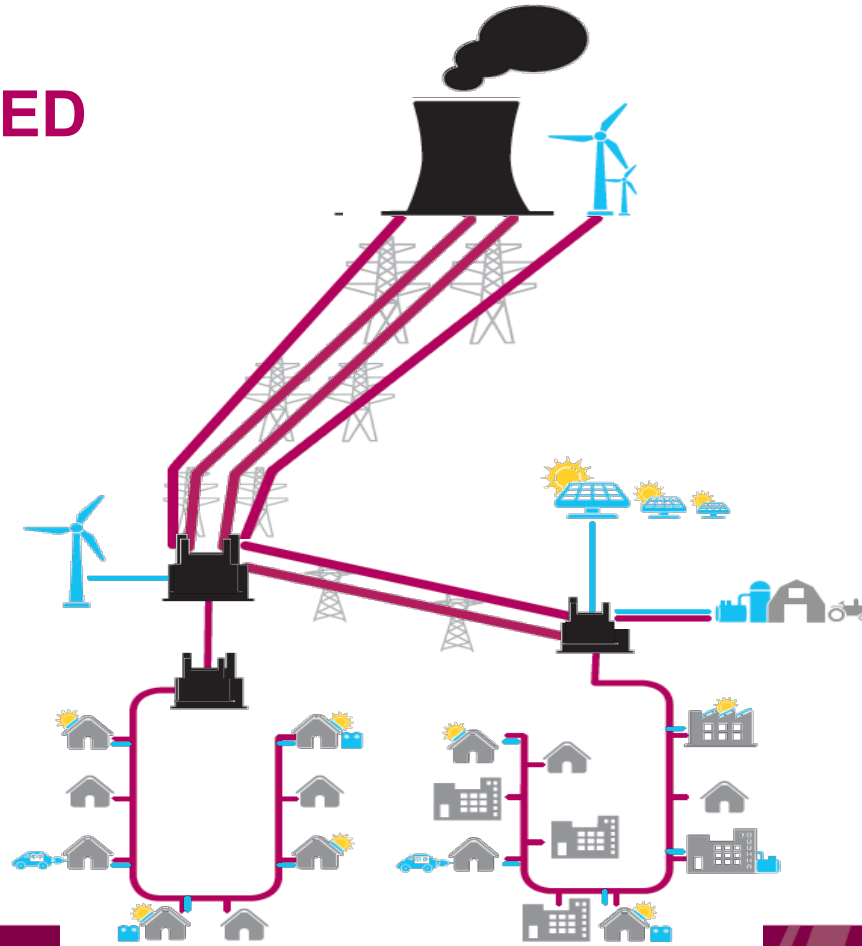
Behaviour change (price effect)

ANNUAL ENERGY FORECAST FOR THE NEM (June 2014 NEFR)

TODAY: HIGHLY CENTRALISED NETWORK



THE FUTURE: DECENTRALISED NETWORK

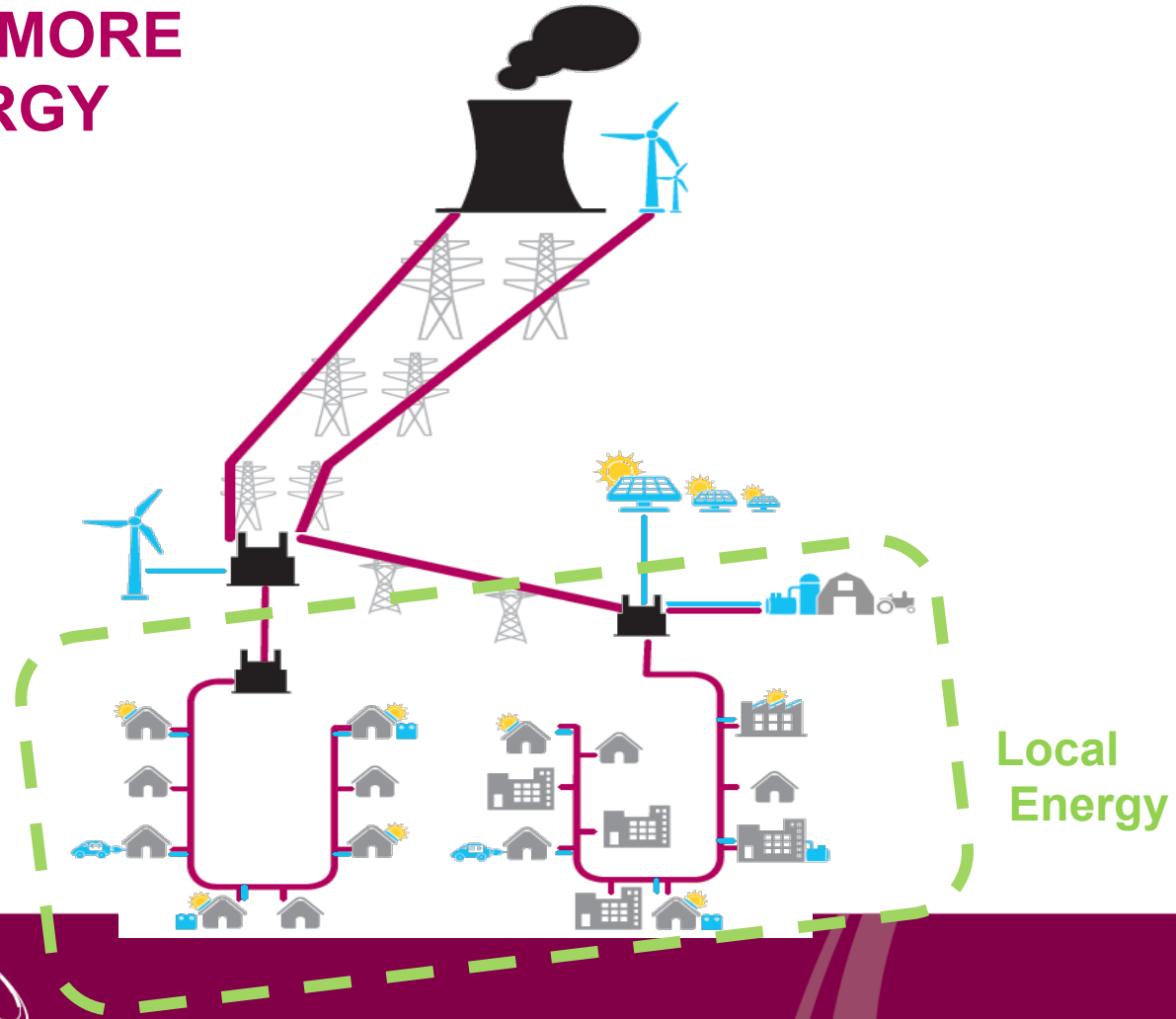


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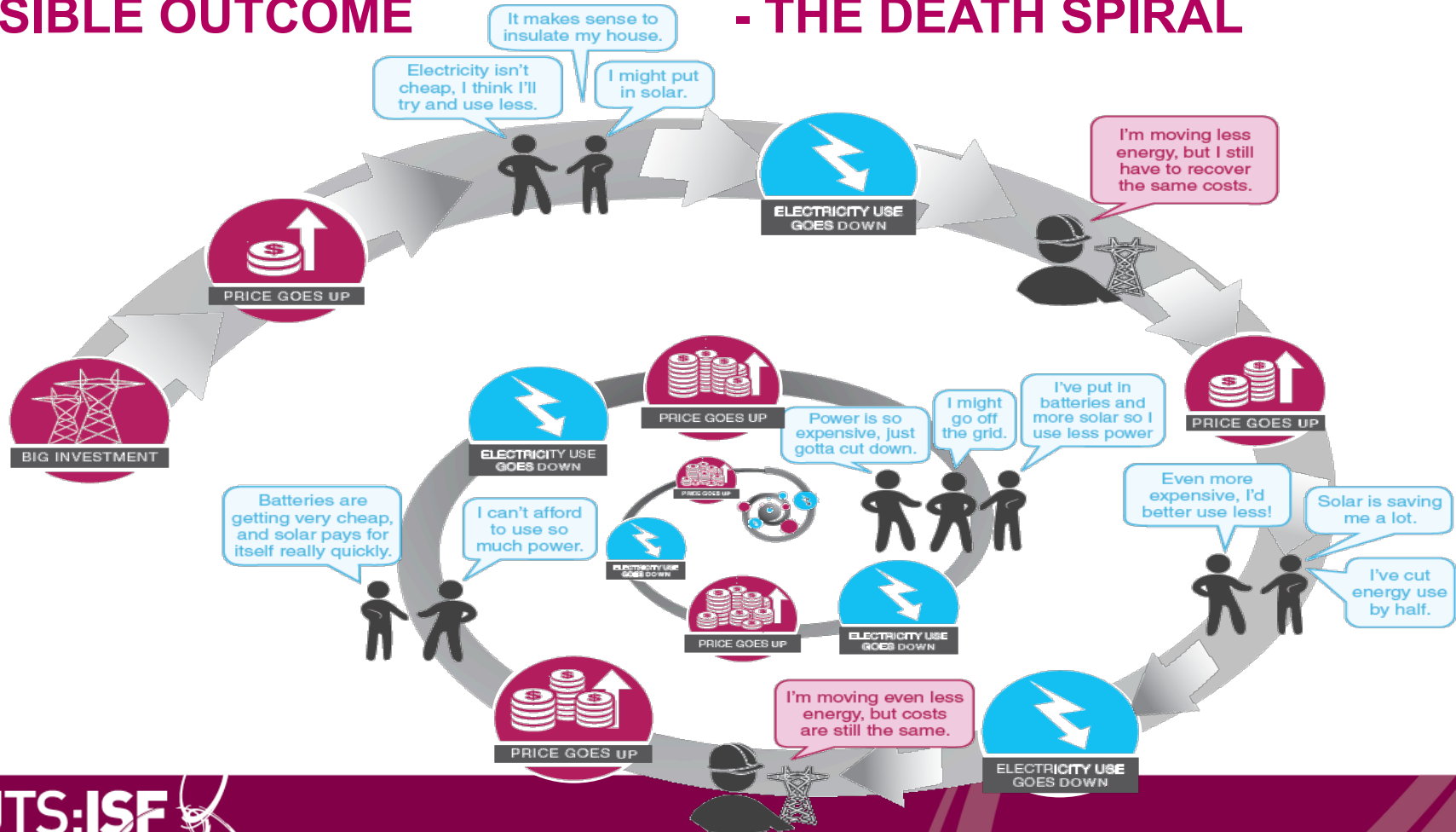


...WITH FAR MORE
LOCAL ENERGY

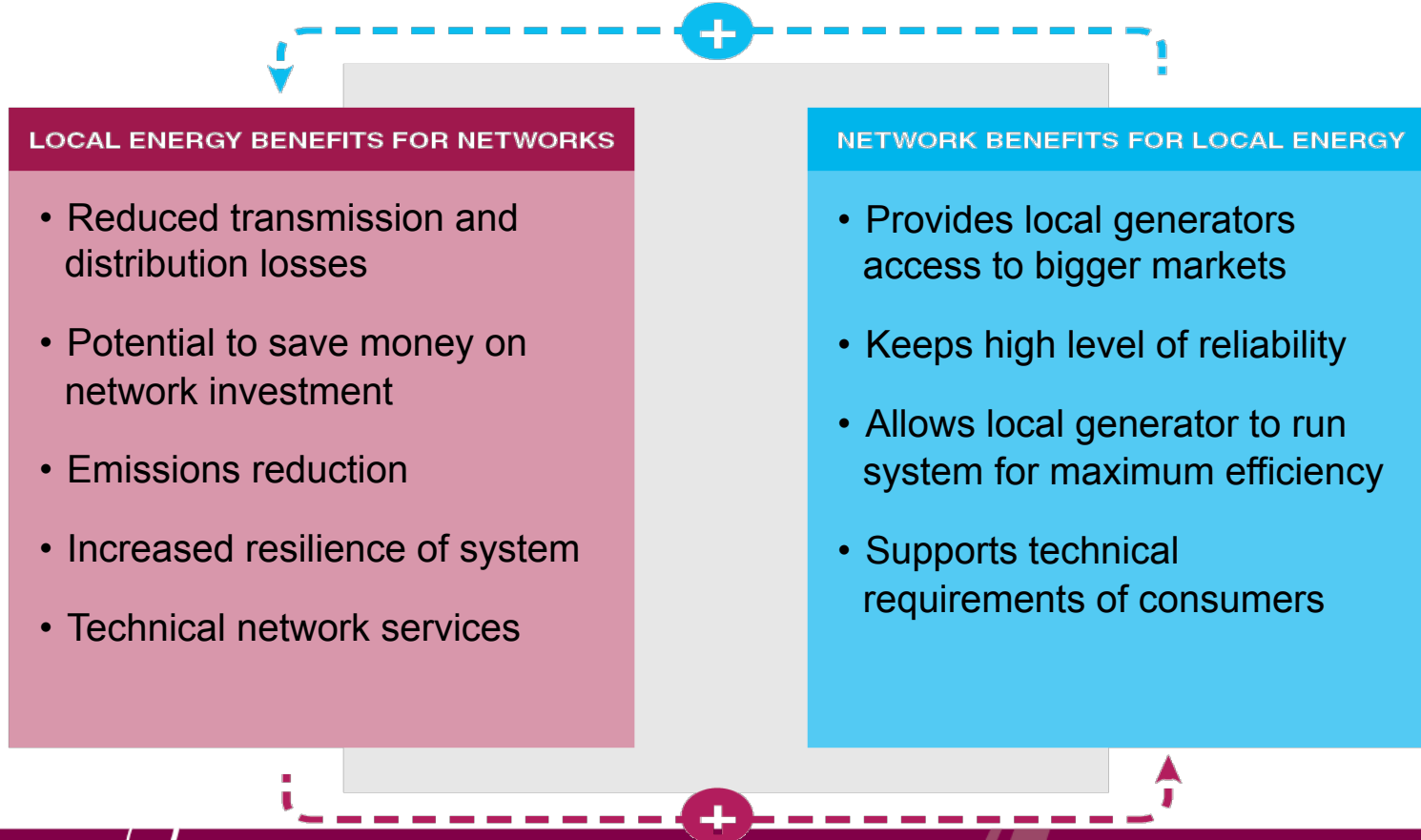


POSSIBLE OUTCOME

- THE DEATH SPIRAL

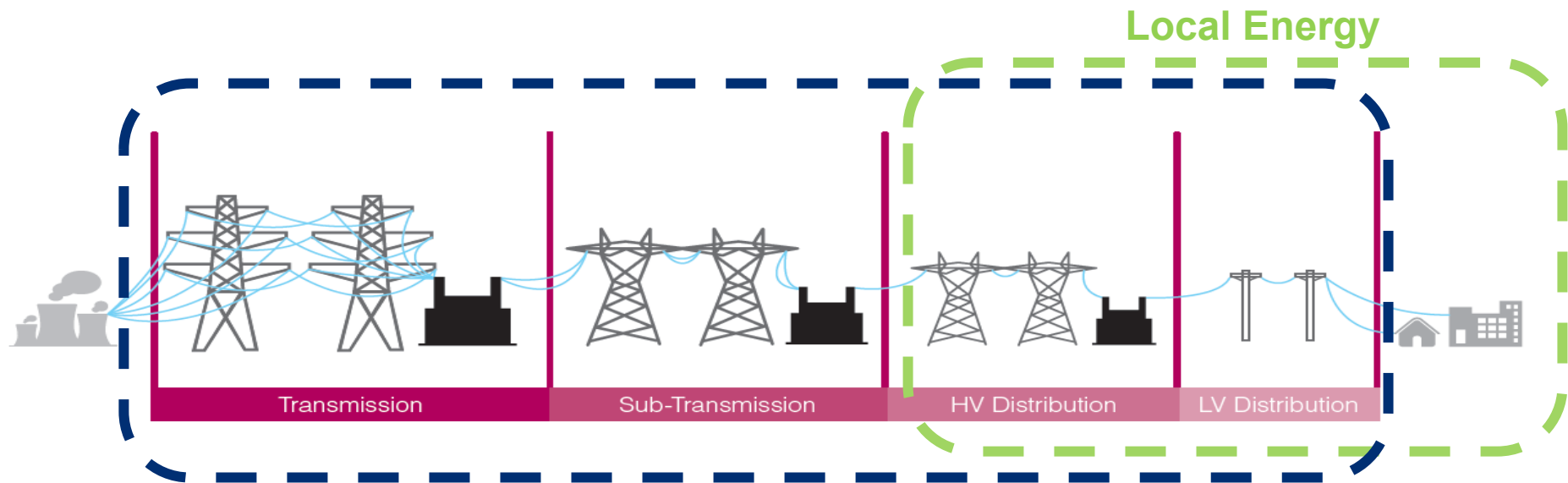


POSSIBLE OUTCOME : MUTUAL BENEFITS



VALUING LOCAL ENERGY: LOCAL NETWORK CHARGES AND VNM

NETWORK CHARGES - WHAT HAPPENS NOW



Current network charges for local energy

THE PROBLEM

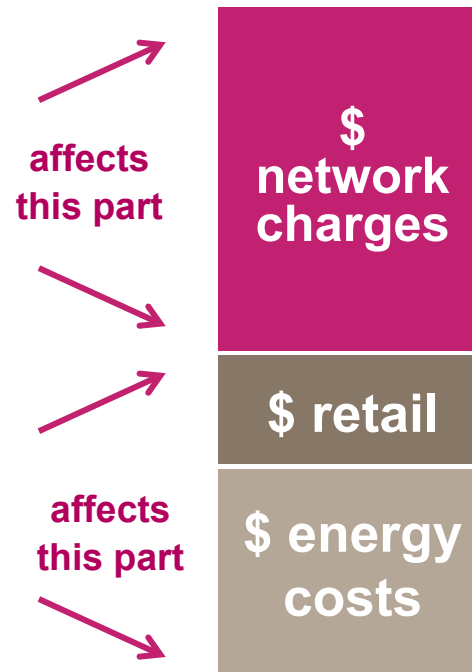
- DGs sell at wholesale and buy back at retail prices
- Strong incentive for customers (and product developers) to focus “behind the meter” & reduce grid consumption
- Perverse incentive to duplicate infrastructure
- Sub optimal sizing of generators and little incentive to supply grid services
- Increases costs for consumers left using *only* grid electricity, as infrastructure costs are recouped from smaller sales volume



THE CONCEPTS

- Local network charges: reduced tariffs for electricity generation used within a defined local network area (nb COST REFLECTIVE)
- “Virtual net metering” is *netting off* generation from one site at another site on a time-of-use basis, so that Site 1 can ‘sell’ or assign generation to nearby Site 2

TYPICAL MAKEUP OF ELECTRICITY BILL



THE PROJECT:

**FACILITATING LOCAL NETWORK CHARGES
AND VIRTUAL NET METERING (VNM)**



THE PROJECT

Objective: To facilitate the introduction of local network charges & VNM

- Five case studies, or “virtual trials”
- A recommended methodology for calculating local network charges
- An assessment of technical requirements and indicative costs for VNM
- Economic modelling of benefits & impacts
- Increase stakeholder understanding and support for rule change(s)



PARTNERS: A BROAD COALITION

PROJECT
LEAD



MAIN
SPONSOR



CITY OF
SYDNEY



Networks NSW

Energy Australia

Electricity Retailers Association

Electricity Networks Association

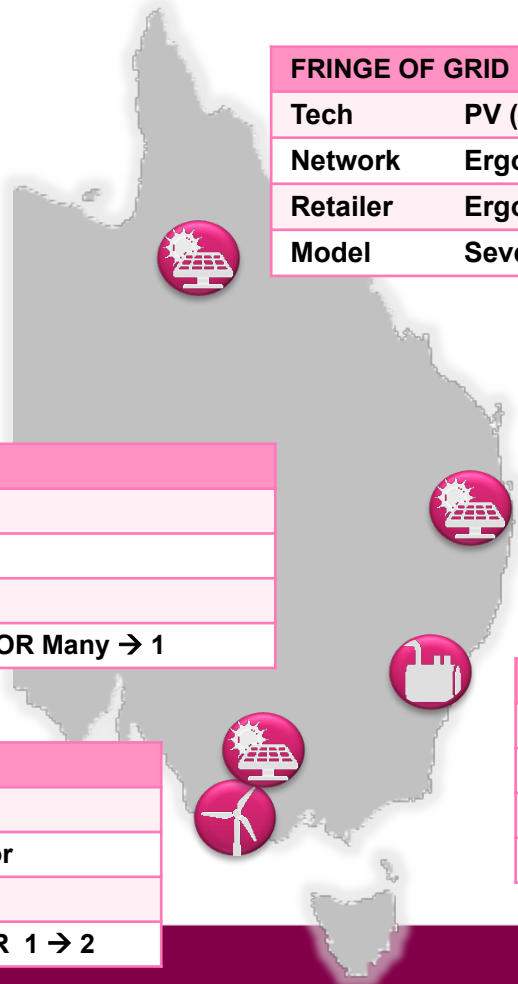
Clean Energy Council

Coalition for Community Energy



isf.uts.edu.au

virtual THE TRIALS



FRINGE OF GRID	
Tech	PV (TBC)
Network	Ergon
Retailer	Ergon
Model	Several → Several

MOIRA/SWAN HILL	
Tech	PV
Network	Powercor
Retailer	AGL
Model	1 → Many OR Many → 1

BYRON	
Tech	PV
Network	Essential
Retailer	Energy Australia
Model	Council 1 → 1

WANNON WATER	
Tech	Wind
Network	Powercor
Retailer	AGL
Model	1 → 1 OR 1 → 2

WILLOUGHBY	
Tech	Cogen
Network	Ausgrid
Retailer	Energy Australia
Model	Council 1 → 1

THANKYOU