



Electricity North West's Demand Response demonstration

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Electricity North West's innovation strategy



electricity
north west

Bringing energy to your door



Our smart grid development



electricity
north west

Bringing energy to your door

Leading work on developing smart solutions



Deliver value
from existing
assets



Customer choice



Three flagship products

£30 million

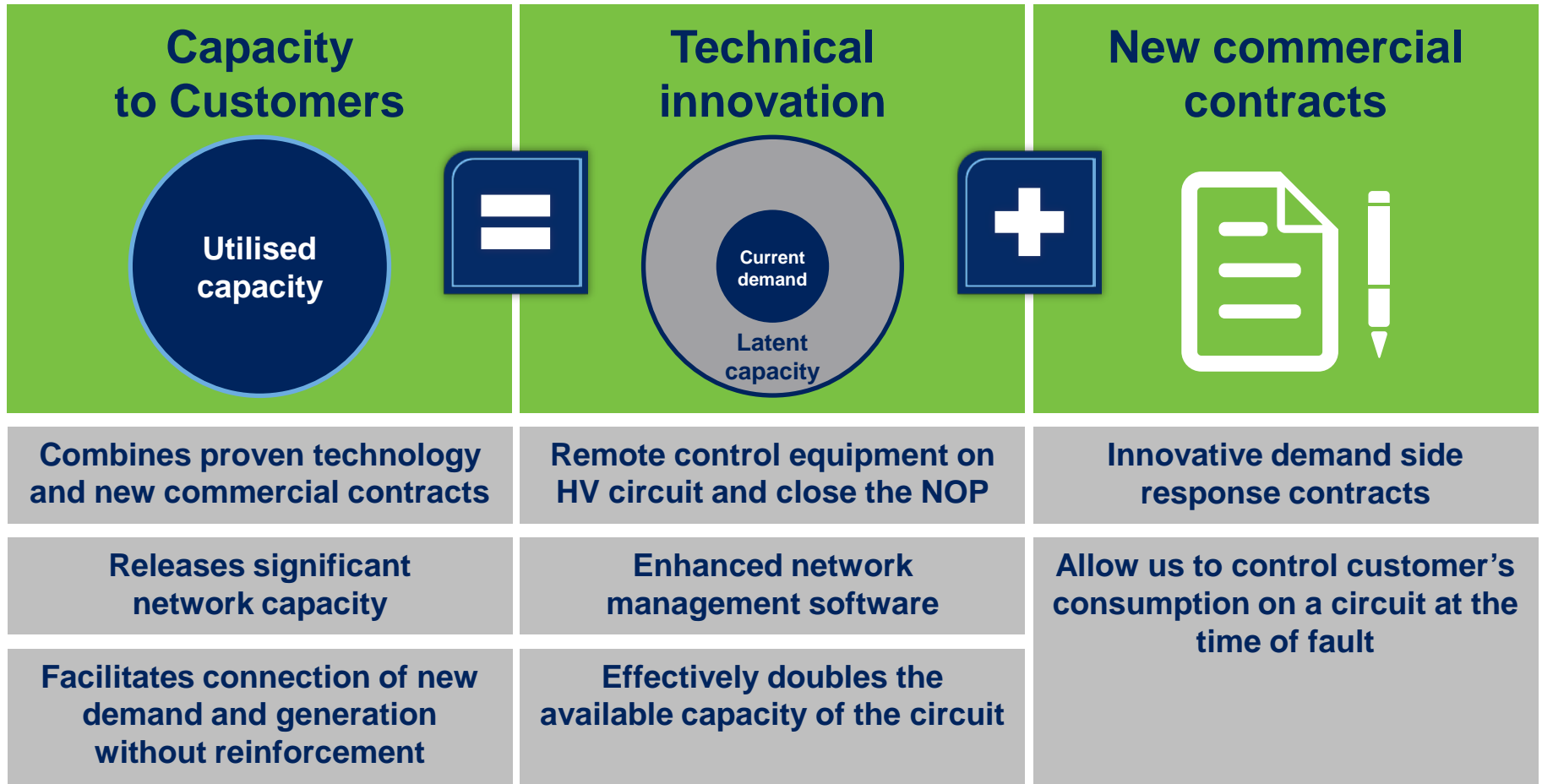
C₂C
Capacity to
Customers

CLASS
Customer Load Active System Services

SMART STREET

C₂C, CLASS and Smart Street demonstrate demand response

What is Capacity to Customers?



Key hypotheses



Demand
reduction

Active network
management

Efficiency

Customers



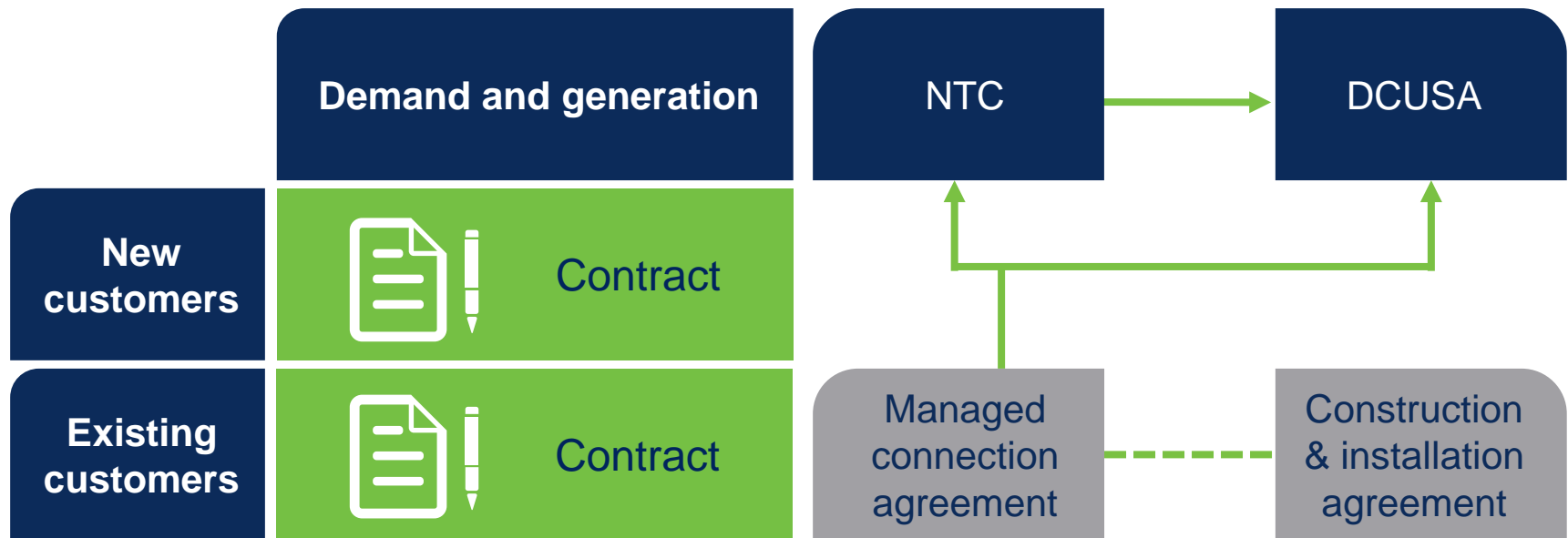
Creates a post
fault demand
response
capability

Network
automation
creates self
healing
capability and
facilitates
capacity release

Defers/
optimises
reinforcement
and reduces
carbon intensity

Existing or new
customers
can directly
benefit
financially by
providing the
demand
response

Contract arrangements





Direct relationship with I&C customer for 'value' discussion



Share contracts early and support customer through discussions

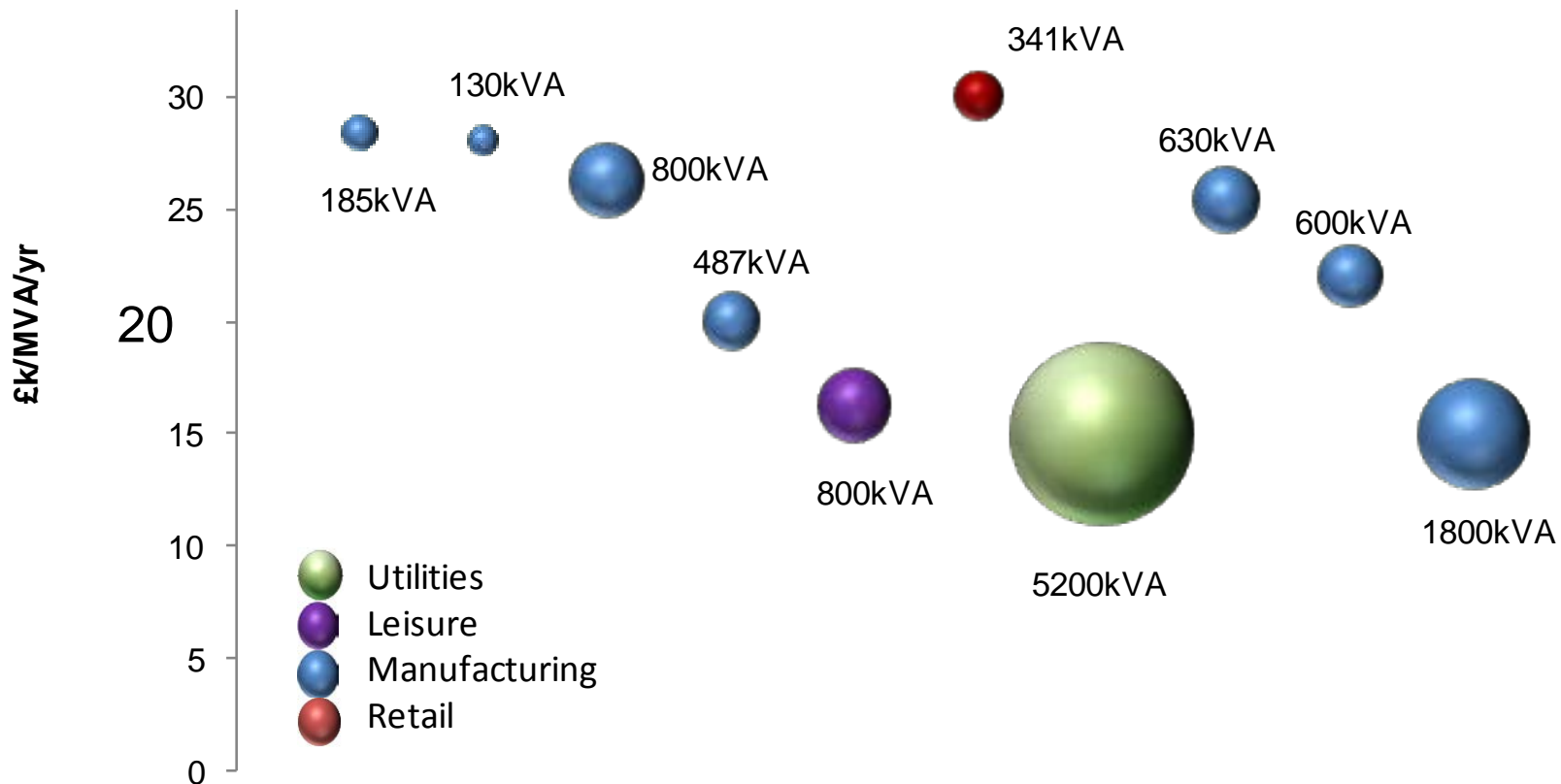


Works best with one point of contact - a customer relationship manager for BaU

Demand response results (EXISTING)



Size, sector and price of DR from existing customers



Demand response results (EXISTING)



Post fault response is attractive to customers and Electricity North West



Wide range of trial participants, appears most favourable to small manufacturers

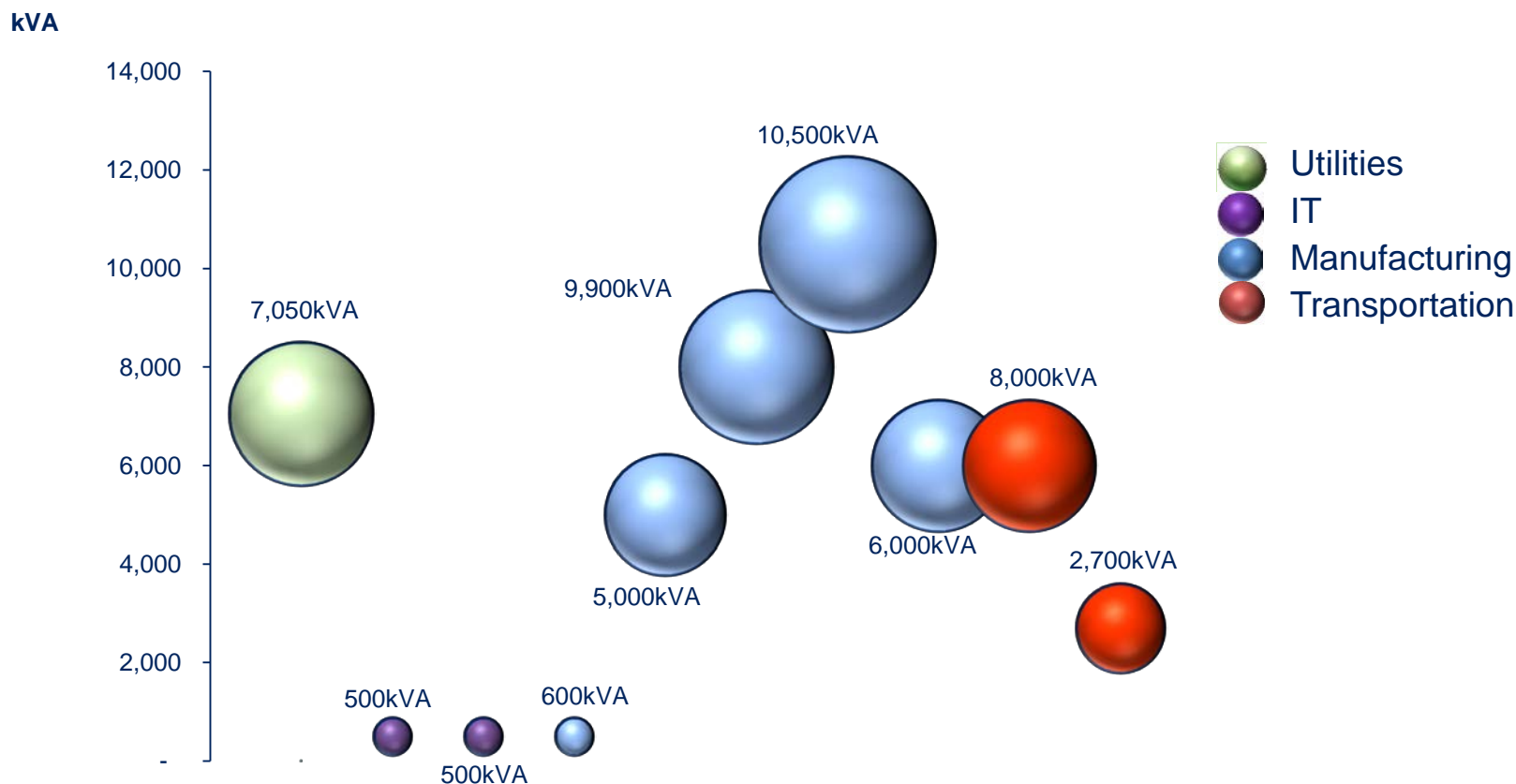


Very attractive to multiple site operators

Demand response results (NEW)



New connection customers' managed capacity, kVA by sector



Demand response results (NEW)



Good range of enduring post fault DR capacities



New DR predominantly from small manufacturers again



Post fault DR can operate in with other DR programmes

Project benefits summary



Full set of results and learning from Capacity to Customers will be included in closedown report with dissemination events planned starting early 2015

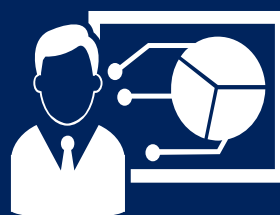
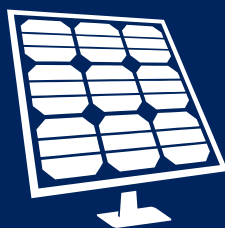
Rapidly
deployable
solution

Reinforcement
deferral

Develops new
DR market

Cost
deferral

Carbon
reduction



Will better
exploit existing
assets, thus
cost-effective
and quickly
implemented

Releases
network
capacity for use
by customers'
LCTs

Creates post
fault demand
response
market which is
less intrusive to
customers

Can defer
reinforcement
costs and the
time taken to
complete the
associated
works

Minimises
carbon-
intensive
infrastructure

Want to know more?



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Bringing energy to your door



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Thank you for your time and attention