

electricity
north west

Bringing energy to your door



Distributed Generation Workshop

Wednesday 21 June

Stay connected...



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WELCOME





- Fire Alarms
- Evacuation Assembly Point
- Mobile Phones
- Welfare





- Welcome 10:00
- ICE 2017-18 Commitments 10:20
- Network Status 10:30
- Constraint Information 10:45
- Network Management System (NMS) 10:50

- Breakout Session 1 11:00
 - Statement of Works
 - Storage
 - Network Status
 - NMS

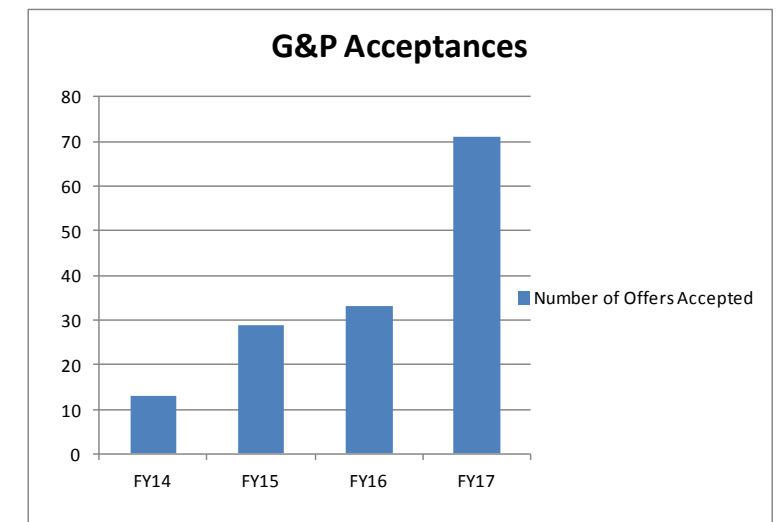
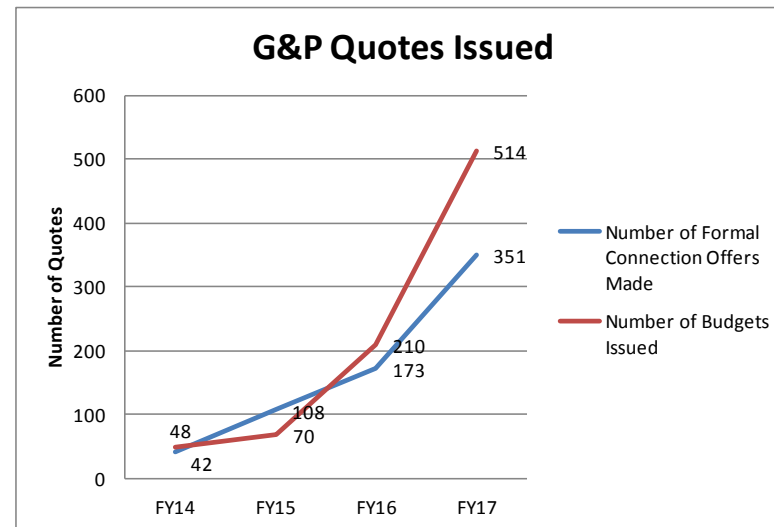
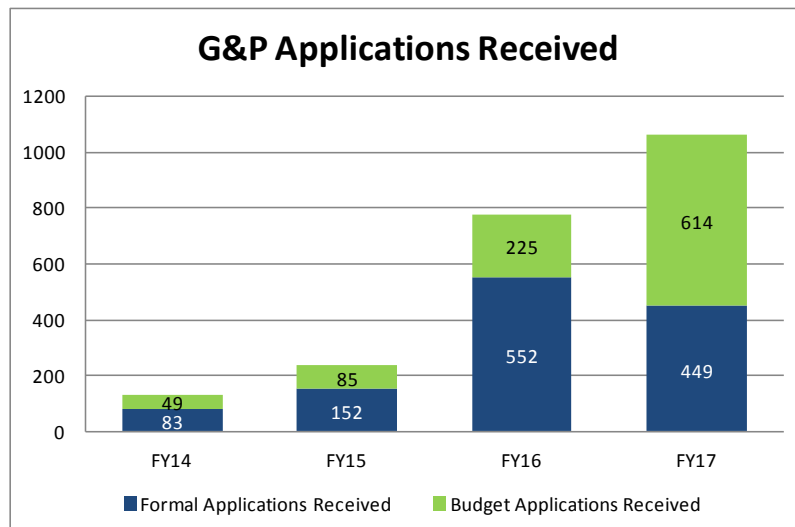
- Breakout Session 2 11:30

- Group Feedback and Close 12:00

Update on DG in the North West....



- Tariff Support changes & TSO Contracts have a significant impact on the market...
- The changing nature and potential volatility of these various markets is having a significant impact on operating models and the way we interact with each other....
- Technology changes and market influencers have seen swings in connecting voltage and connecting capacity as well as technology and these all create differing challenges to the connection
- Have we started to see a plateau in the market....?





Incentive on Connections Engagement 2017-18

Rebecca Lees

Incentive on Connections Engagement Manager

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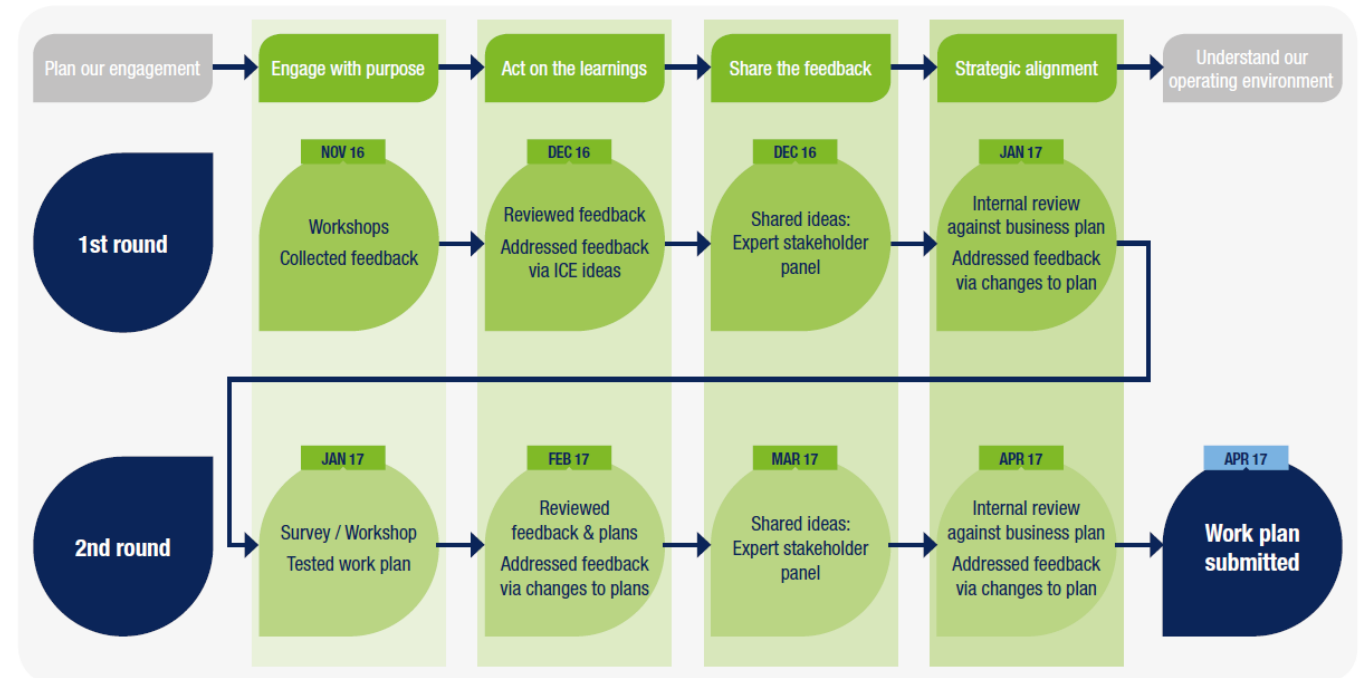
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Incentive on Connections Engagement 2017-18



- Your views turned into action
- Our focus this year:
 - Flexible connections
 - Constraint information
 - Online application
 - Virtual Private Networks
 - DG Owner-operator panel
 - Progress and community updates
 - Ongoing engagement
 - Time to quote: LV, HV and EHV
 - Customer satisfaction

755
DG STAKEHOLDERS
ENGAGED WITH
IN TOTAL





○ Your
feedback

- Our plan and report

○ We review

- We can update our plans

○ Re-
submission

- ICE re-submission opportunity (October)

**Feedback
today**
Shape our
plans...

**Monthly
DG survey**
Have your
say...

Ofgem consultation (July); Please respond!

What's important to you?



Estates &
Wayleaves

Interactivity

Payment
options

communication



Network
information

Flexible
connections

Time to
Quote

Application



Do our actions align with what's important to you?



Network Update

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- Moorside Update - Connections Deferment in Cumbria
- Significant areas of Customer Driven Reinforcement Need
 - Cumbria - 132kV
 - Stannah - Fault Level
 - Barrow - Fault Level
 - Royton - Fault Level
 - Areas where we know NGET restrictions are developing
 - Harker - Mod App required
 - Heysham - Under review
 - Padiham & Penwortham East - Rochdale SGT replacement
- Current Interactivity Areas





Network constraint information

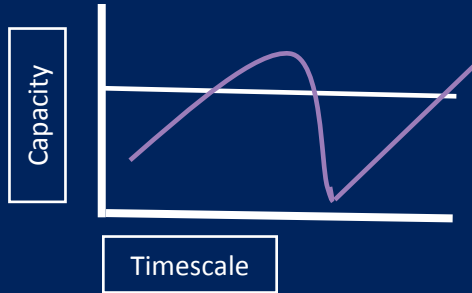
Jo Fallows

Capacity Strategy Manager

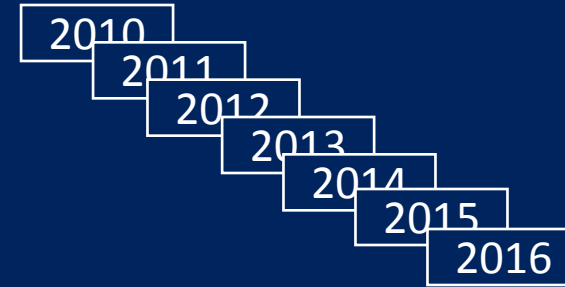
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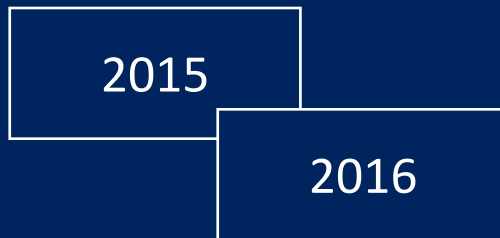
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What is a curtailment index?



Forecasted curtailment index



Actual curtailment index



Benefits



Provides an indication of the average constraint on a given part of the network.
Calculated on a rolling six year period

Allows for average faults rate, construction and maintenance outages

Provided at customer level for flexible customers who have a Maximum Import Capacity/Maximum Export Capacity >200kW

Curtailment value provided in minutes/hours/days/months and percentage of year

Forecast curtailment index provided with quotation, Actual curtailment index reported annually

Electricity North West will seek to intervene if the average curtailment index exceeds >3% on a rolling six year period

Forecasted curtailment index



	LV	HV	33kV	132kV
Faults	12 hours	120 hours	360 hours	360 hours
Maintenance	1 hours	5 hours	35 hours	324 hours
Construction	8 hours	96 hours	200 hours	300 hours
Total Hours	21 hours	221 hours	595 hours	984 hours
Total %	0.25%	2.5%	6.8%	11%
Cap %	1%	3.0%	8%	11%



This is based on the previous twelve months of outage data (April to March)

The customer will
be notified of
their:

- Original forecasted curtailment index (6 year average)
- Curtailment index cap (6 year average)
- Actual curtailment in the previous year
- Actual curtailment index (rolling 6 year average)

Our actual curtailment index information will be issued to customers in the first full financial year following connection.



- Customer provided with a clear expectation of average interruption to their operations
- Allows network outages to be modelled realistically in investment decisions
- Average curtailment cap provides safe guards against excessive outages or faults



- Clear performance expectation
- Allows reasonable flexibility in and between years for network access
- It provides an equitable basis for Active Network Management



Network Management System

Martin Cawson Business Performance Manager

Russell Baker NMS Change Management Lead

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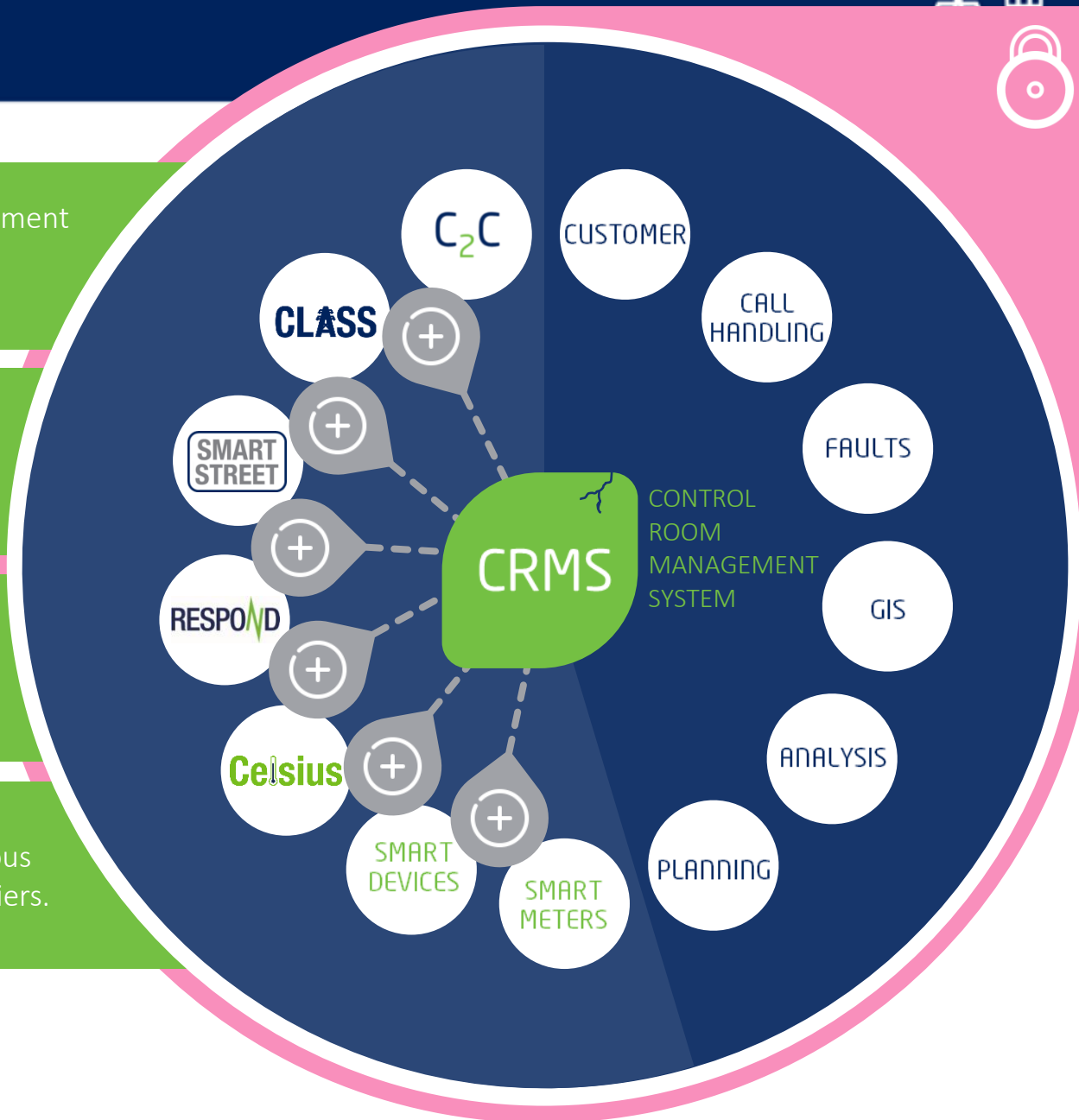
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CRMS, Our Control Room Management System, purpose built, very proud of what its helped us achieve

Nearing obsolescence, ageing, reaching its capability limits

Costly bolt-ons, funded by innovation projects, unfeasible to be continually funded as is

Higher security risk, using numerous third party connections and suppliers.

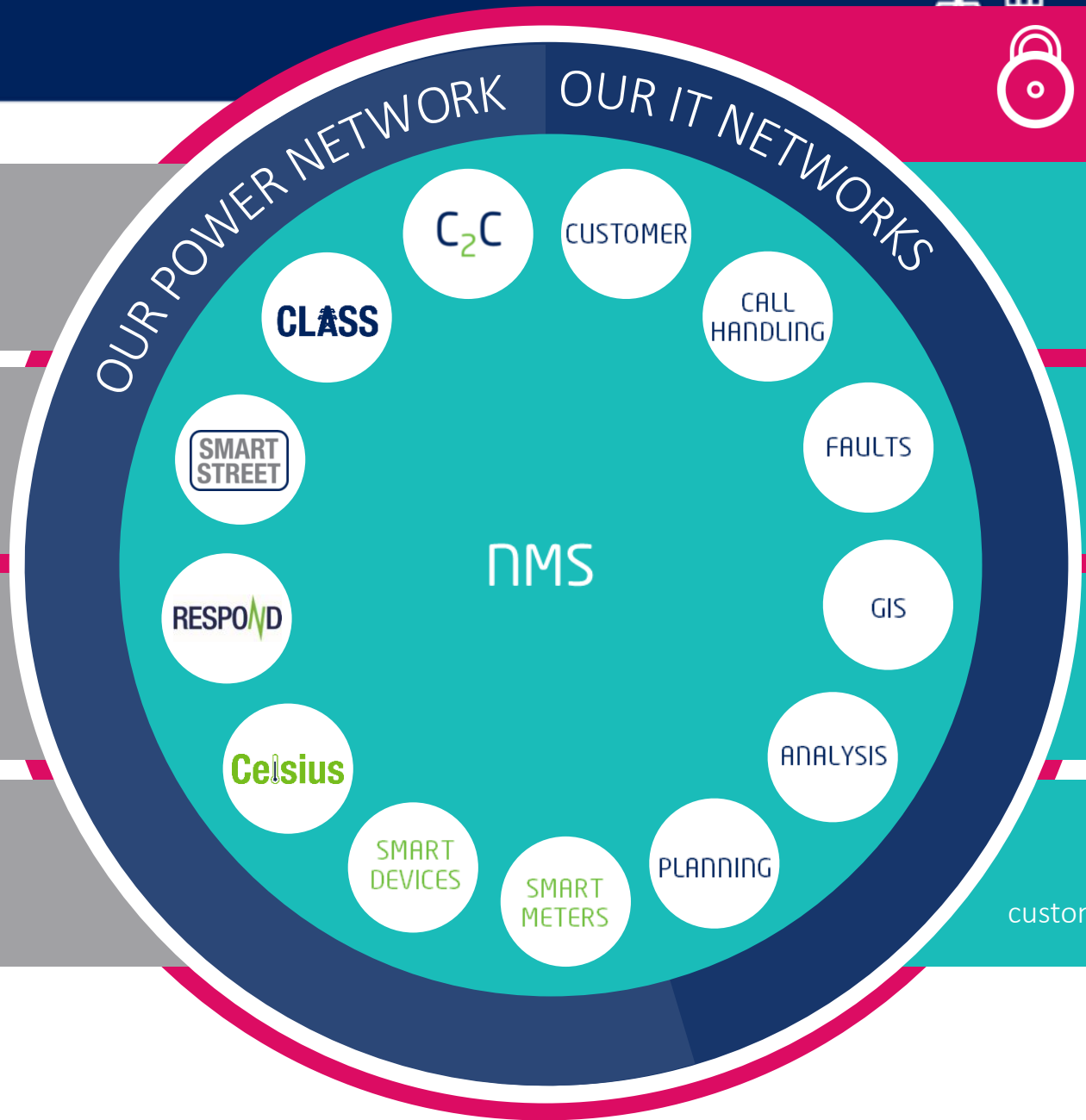


Direct financial benefits from NMS and Smart Meters during ED1

Reduce investment in reinforcing our electricity network, and in fault level investment

Integrates our low carbon tech and 2.5m smart meters, to enable our Smart Grid

Enables us to continually innovate and generate future business growth



Operation process performance improvements

Will support 13,000 switching devices and 35,000 measurement points

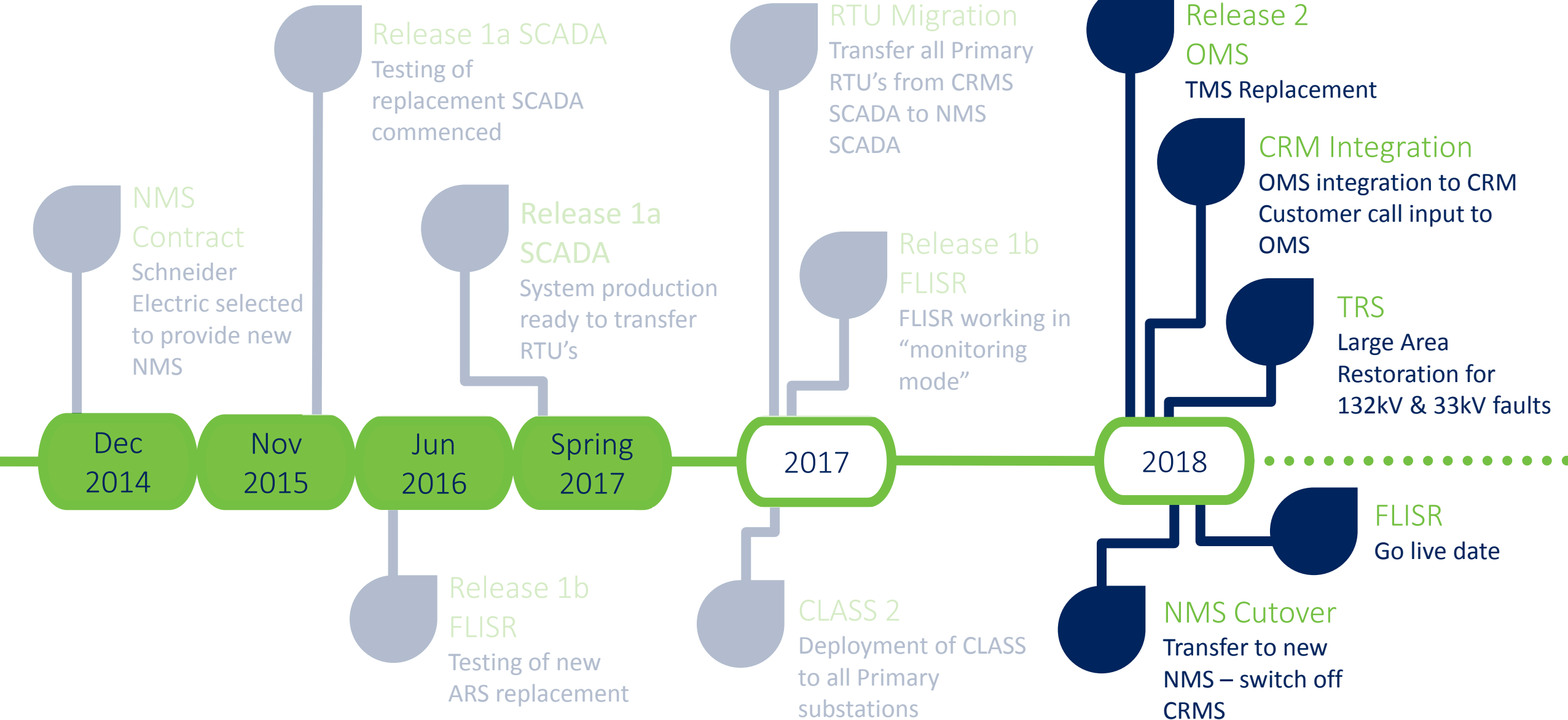
Enables adoption of innovation projects and associated benefits

Will deliver improvements in customer service, by reducing customer interruptions and minutes lost



NMS Timeline

NMS Timeline





Break-out session 1

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Agenda



Session	Topics	Time
Break out session 1	Statement of Works Storage Network Status Network Management System	11:00-11:30
Break out session 2	Statement of Works Storage Network Status Network Management System	11:30-12:00
Round up & close		12:00
Optional: surgery sessions		12:30-15:00



Break-out session 2

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Thank you!



- Keep in touch:
 - DG monthly surveys
 - Newsletters
 - Events
- Our DG [work plan](#)
- Our [DG ICE Looking Forward and Back report](#)
- Events [webpage](#)

