

# National Grid Consumer Value Proposition

## NGGT

November 2019



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# In its business plan guidance, Ofgem has set out a number of criteria for what should be included in a CVP submission

## CVP requirements as set out in the business plan guidance

- We should set out the ways in which our plan goes **beyond the minimum requirements** and how this will lead to benefits for consumers (paragraphs 5.13 and 5.21).
- We must **summarise our CVP clearly** in our business plan. However, we can draw on material in each of the relevant areas that contribute towards the CVP (paragraph 5.14).
- We should **seek to provide a monetised value to consumers** for each proposal forming part of our CVP. We should set out any methodology we use to determine the monetised value, along with any underlying data used in its calculation (paragraphs 5.15 and 5.21).
- We should provide **evidence of the associated additional value to current and future consumers, or consumers in vulnerable situations**. Where possible, this evidence should be quantitative and independently substantiated and take into account any distributional impacts on different consumer types (paragraphs 5.19 and 5.21).
- We should **clearly and unambiguously identify any proposals forming a part of a company's CVP** (paragraph 5.17).
- We should **think broadly about the areas within which we can show how our plan offers additional value** (paragraph 5.19).
- We should consider, where appropriate, **committing to returning any rewards for the CVP in the event of non-delivery** (paragraph 5.20). We should set out **appropriate and implementable arrangements for non-delivery** (paragraph 5.21).
- We should provide **evidence on how our proposals incorporate consumer expectations/priorities and value** (which may include willingness to pay) (paragraph 5.21).
- We should provide evidence on the extent to which our CVP proposal has been reviewed by and received the **support of the Ofgem RIIO-2 Challenge Group, our user group** or clearly and satisfactorily explain the reasons for the lack of such support (paragraph 5.21).
- If we include a proposal for an uncertainty mechanism in our CVP, we should provide an **assessment of the likelihood of it being used** in the RIIO-2 price control period (paragraph 5.24).
- **Clearly identify any additional costs included in forecasts** associated with the delivery of CVP proposals, so Ofgem can exclude them from its relevant benchmarking exercises (paragraph 5.23).

### Key aspects of the CVP:

- The required approach is far from prescriptive and there is ambiguity over what could/should be included.
- CVPs should focus on activities that go beyond minimum requirements.
- Any financial reward for CVP will only be based on those aspects that can be quantified.
- Any CVP benefit received may need to be returned in the event of non-delivery.

## Ofgem has provided examples of types of activities that could be covered by the CVP

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- service quality levels that are higher than existing levels and delivered at the same or lower cost
- bespoke outputs in aspects of service provision that are not currently reflected in the existing framework of outputs
- commitments for stakeholder engagement, which could take the form of bespoke outputs, likely to result in measurable positive outcomes for consumers
- well-justified initiatives in the Environmental Action Plan to reduce the environmental impacts of the network that will result in measurable outcomes that are valued by consumers
- uncertainty mechanisms that highlight risks to consumers of which Ofgem would not otherwise have been aware
- an innovation strategy likely to drive forward energy system thinking and address consumer vulnerability
- whole system approaches likely to drive forward the industry – including proposals for data sharing
- strategies and implementation plans likely to deliver positive impacts for consumers in vulnerable situations, including use of the consumer vulnerability use it or lose it allowance in gas distribution
- the company's commitment to an above-BAU approach to sharing information and data with relevant parties to facilitate greater whole system coordination

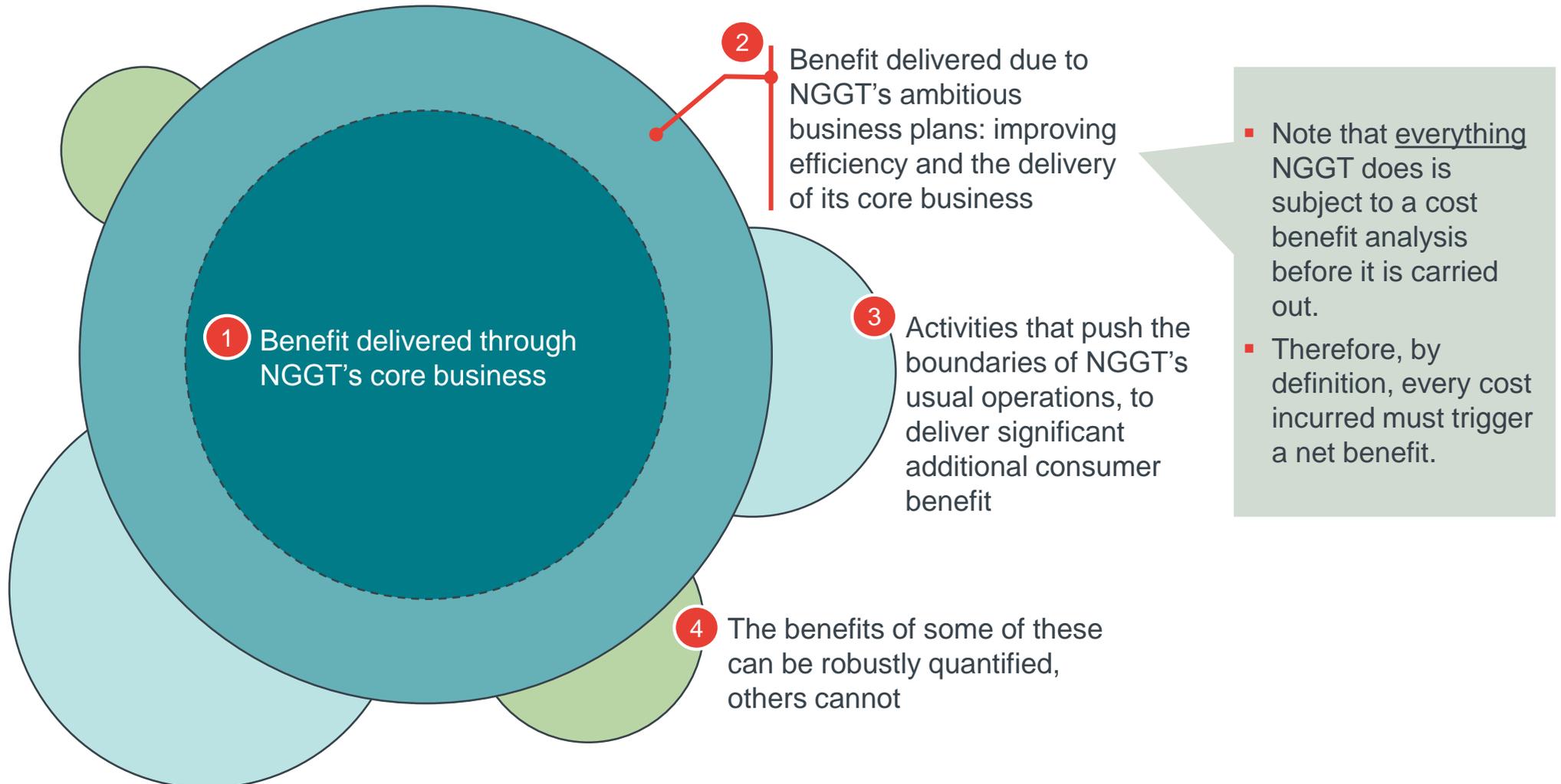
*Para 5.15-5.16*

These examples are somewhat helpful, but do raise a number of conceptual questions about how CVP may or may not interact with other elements of the regulatory arrangements, for example

- Between CVP and cost allowances.
- Between CVP and PCDs.
- Between CVP and areas where there may be specific financial incentives, e.g. stage 4 of the business plan incentive, which rewards companies for submitting cost forecasts lower than Ofgem's benchmark level.

# We have sought to place more structure around the CVP, by developing a framework for classifying how NGGT generates value

There are several layers of benefit that NGGT delivers to consumers



# We have limited the CVP to those actions that push the boundaries of NGGT's normal scope of operations and show creative thinking

1 NGGT provides a service that owing to its nature creates huge consumer benefit above cost, i.e. through its provision of reliable transmission infrastructure that facilitates the entire energy system and every aspect of modern life.

We don't include this value in the CVP because it is part of NGGT's core business, and not new or incremental.

- However, there is a huge amount of value here.
- Everything NGGT does is subject to a CBA, so by definition, every cost incurred must trigger a net benefit.

2 NGGT is growing that value by being more efficient and improving its core business, and this is reflected in its ambitious business plans:

Not included in the CVP because it is either:

- an extension to NGGT's core business,
- Rewarded in stage 4 of the business plan incentive, if it involves cost efficiencies not accounted for in Ofgem's benchmark, or
- Incentivised elsewhere in the regulatory framework.

3 Beyond this, NGGT is also proposing a range of actions that will push the boundaries of its core business, and that will deliver new consumer benefits. They include:

- Innovation;
- Environmental work;
- Whole systems work;
- Stakeholder engagement;
- Information sharing.

## CVP

Our understanding of Ofgem's intention for the CVP is to encourage networks to think outside their present envelope of operation, to seek out activities that they are not presently providing that may bring large benefits to consumers. Not to log all of the consumer benefits in their business plans. So we limit the formally quantified CVP to items in these two buckets.

4 Of the actions in category 3, the consumer benefits of only some can be robustly quantified, due to availability of data, uncertainty of the exact impacts, and complexity.

We only attempt to quantify those CVP items where benefits can be monetised in a robust way.

# NGGT's core service delivers large economic and wider societal value as a key input into almost every aspect of daily life

- NGGT maintains and operates one of the most critical pieces of national infrastructure in the country.
- There is no measure available of the huge value delivered by the national gas transmissions system – from heating to cooking to supplying the fuel source of about 40% of electricity generation in GB.
- While the costs of operating this infrastructure are forecast at about £600m per year during T2, the value delivered by NGGT far outweighs these costs, allowing modern society to function.
- We have not attempted to place a monetary value on NGGT. However, the below case study gives a sense of the scale of the costs that can result from even very realistic scenarios around reduced capability on the gas transmission network.

**Case study:** estimated economic benefits of maintaining capability of GB's gas transmission network

*Note that this study only looked at a very narrow set of the overall benefits of the gas transmission system*

## EY published a report in April 2019 which looked at two realistic scenarios around an incremental reduction of capability on the gas transmission network:

They looked at this under two scenarios:

- 19% reduced entry capacity, resulting from a decrease in GB's ability to import gas from a reduction in entry capacity at Easington and St Fergus.
- Slower start-up of gas-fired power stations, as a result of a loss of compressor station on the NTS.

They estimated the impact of these scenarios based on the impact on wholesale gas prices and gas system costs, the impact on electricity prices, and the impact of increased energy prices on energy intensive industries.

The report found that even within this very narrow scope, the costs of a capacity reduction ranged between £42m and £246m per annum in 2025, and £252m and £877m in 2035 (all in 2017 prices).

Figure 2: Impact in 2025 of reductions in NTS capability

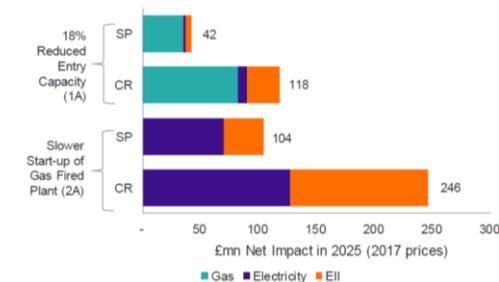
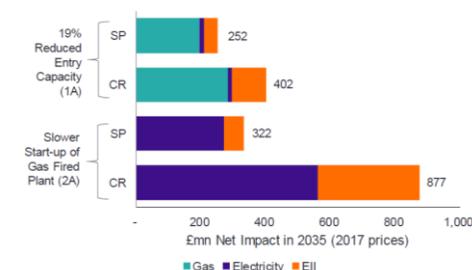


Figure 3: Impact in 2035 of reductions in NTS capability



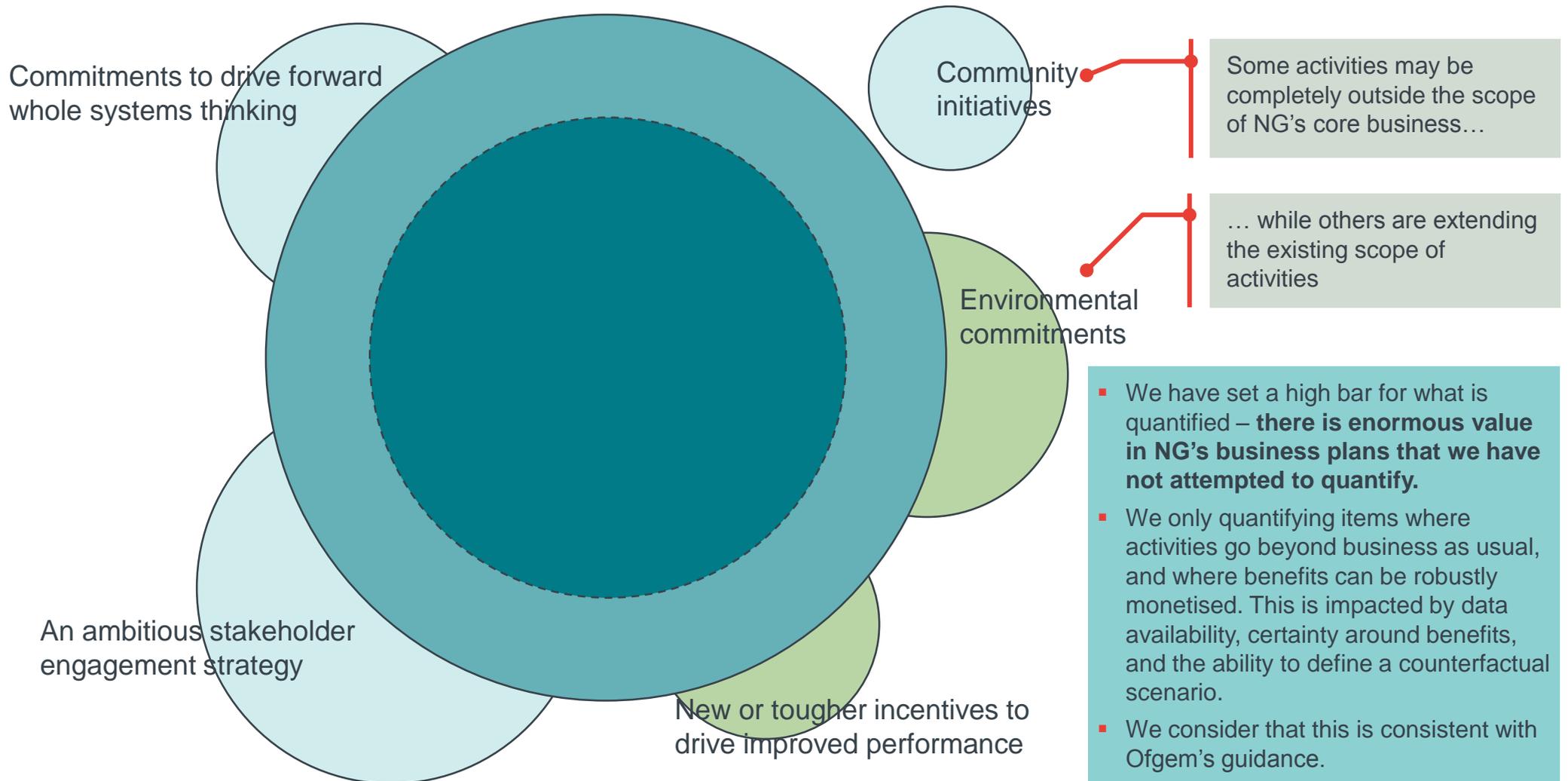
## NGGT's plans for T2 are stretching in terms of efficiency and improvements to its core services

The examples below show how NGGT's business plan will deliver consumer benefit beyond what has been delivered in T1 through ambitious efficiency commitments and actions to improve outputs.

| Efficiency improvements  | Output improvements  |
|--|--|
| <ul style="list-style-type: none"> <li>▪ Deliver operational cost efficiency, saving £150m over RIIO-2</li> <li>▪ Committing to further productivity improvements of 1.1% per year over RIIO-2. This is nearly three times the government's forecast of UK productivity growth, and will save £22m in costs.</li> <li>▪ The outcome of total operational cost efficiencies will mean RIIO-2 opex costs are 13% lower by the end of RIIO-2 than they are today.</li> <li>▪ A further 4% efficiency on direct capital investments.</li> <li>▪ These savings include efficiencies across a range of key activities. For example NGGT is committing to reduce safety spending by £2m (or c.15%), while maintaining leading safety standards, where average yearly spend is £14.6m in T2 compared to £16.9m in T1.</li> <li>▪ Going beyond minimum requirements for competitive procurement (using competitive procurement for projects over £100k rather than the legal threshold of £300k) to ensure that efficiency gains through competition are realised.</li> </ul> | <ul style="list-style-type: none"> <li>▪ An extensive asset health programme to maintain current levels of network reliability and availability as efficiently as possible.</li> <li>▪ Maintaining network capability (the ability of the network to accommodate levels of gas flow onto and off the network) despite a changing energy sector and significant future uncertainty, ensuring minimal impact on wholesale energy costs. This involves scenario modelling using the Future Energy Scenarios, analysis to optimise the network by balancing costs with user needs, and development of an asset health plan to reflect this.</li> <li>▪ NGGT has also engaged widely on network capability, and developed metrics to help stakeholders understand and engage with its network capability work.</li> <li>▪ Going beyond requirements to proactively improve outcomes for customers and consumers – for example installation of new isolation valves at Tirley to allow maintenance without supply interruptions.</li> <li>▪ Improving network resilience through investments in cyber and physical security enhancements.</li> </ul> |

... we consider these actions to be within the envelope of NGGT's core operations, so we do not include them in the CVP – but these steps add significant consumer benefits

## We have interpreted the CVP as activities where NG is pushing the boundaries of what it does to deliver additional consumer value



... the following slides set out our framework and process for identifying these types of activities

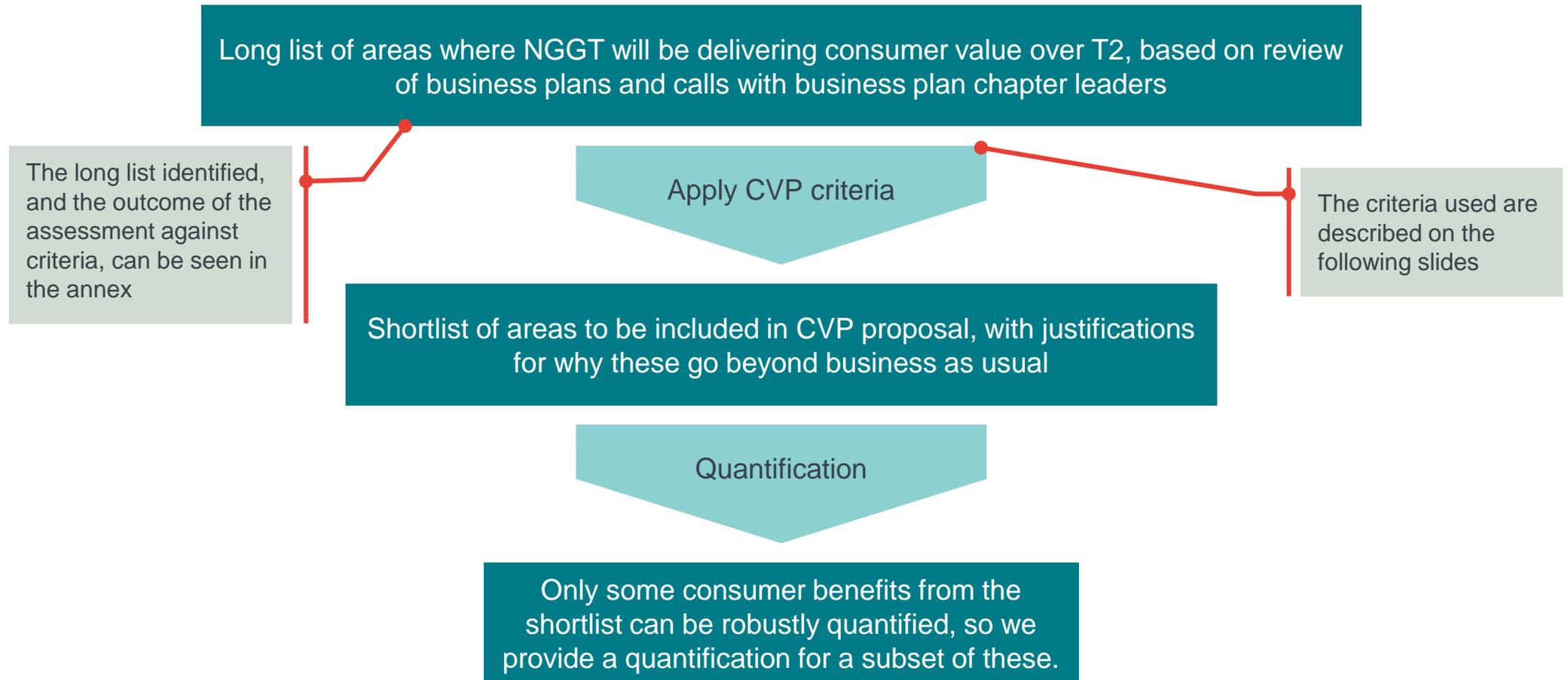
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# We have applied the following process to identify CVP areas, and to quantify a subset of these

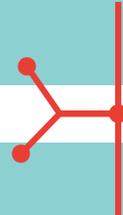
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NGGT's plans for T2 set out a range of projects and commitments that add consumer value. By applying the Ofgem framework to these, we determine a shortlist of projects for which we attempt to quantify benefits.



# Based on Ofgem's business plan guidance, we apply the following criteria to select CVP areas

- 1 Benefits consumers (not just customers or other stakeholders) – and how
- 2 “Additional value”: delivers value incremental to the minimum requirements
- 3 Is a clear commitment in the business plan



On the following slides we provide more detail on these two criteria

## Other considerations

Can it be robustly quantified?

For items that can be quantified with a reasonable degree of confidence, we have carried out this analysis

Have costs associated with this CVP proposal been included in baseline funding forecasts?

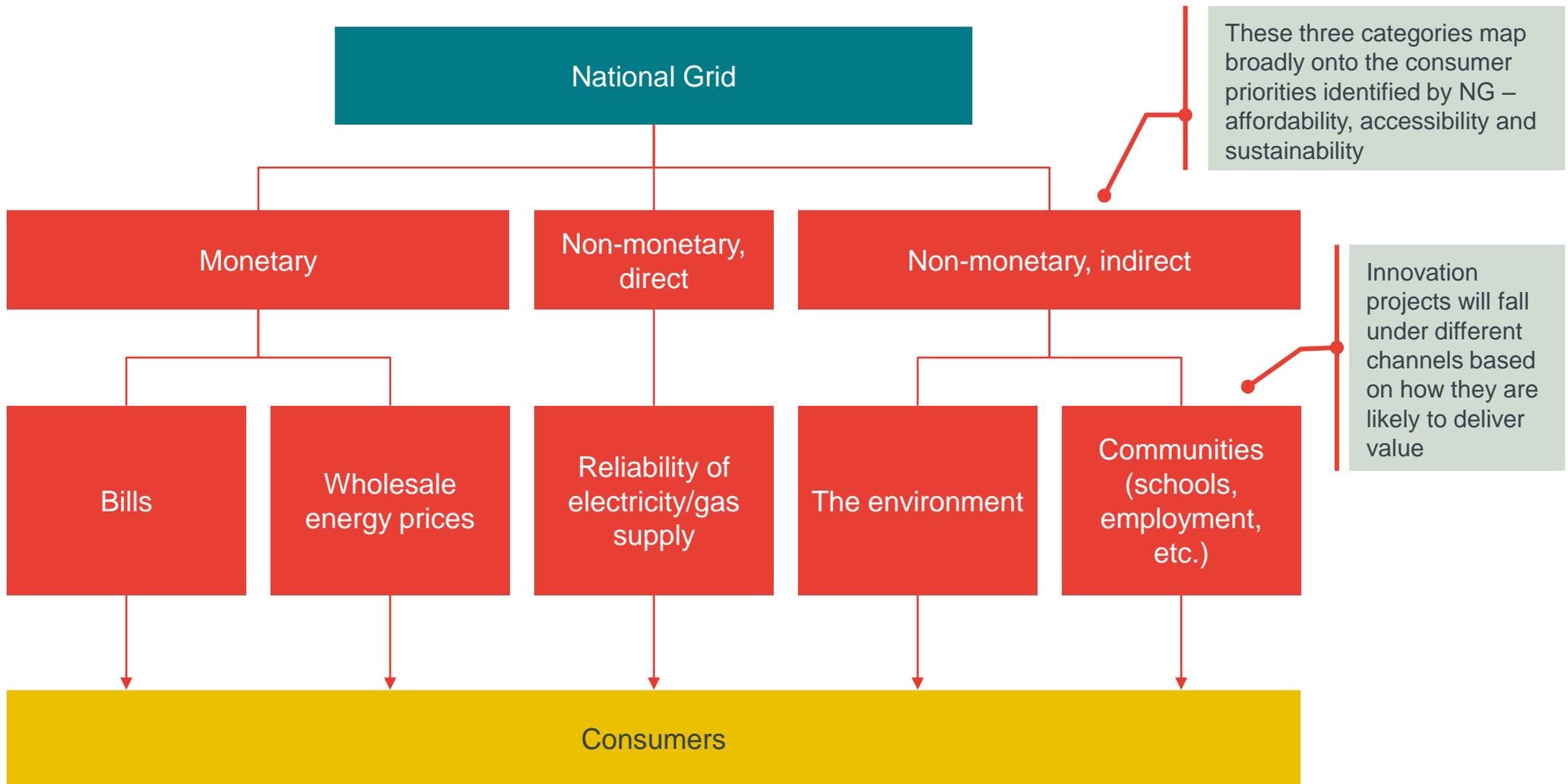
We are interested in net benefits to consumers, so where we carry out quantification, we net off any funding that comes from consumers

Are there any associated outputs, uncertainty mechanisms, or CVP proposals in the business plans?

It is useful to have an understanding of any interactions with other areas of the business plan. We have been careful not to double count benefits.

# When assessing actions, we first need to determine whether they benefit consumers, by identifying a channel through which they do so

NGGT doesn't interact directly with consumers, but can benefit consumers through a number of channels, as shown below. We only shortlist actions for the CVP if their impact on consumers through one or more of these channels can be identified.



# We then need to determine whether actions deliver “additional value”, beyond what would be delivered through business as usual

|   | Monetary  |  | Non-monetary, direct                            | Non-monetary, indirect  |  |
|---|---|--|---|---|--|
|   | Bills   | Wholesale energy prices  | Reliability of electricity/gas supply           | The environment   | Communities (schools, employment, etc.)                              |
| Examples of how value can be delivered to consumers   | Savings in the business plan: reducing the amount of revenue needed to deliver the same level of service  | Anything driving forward whole systems thinking (collaboration, data sharing)<br>Facilitating cheaper sources of energy to come on the system (connections, relevant innovation) | Reducing the level of energy not supplied (ENS) | Improving environmental sustainability in a way that is valued by consumers | Delivering value to communities in a way that is valued by consumers |
| But to be ‘additional’, value must go beyond what would be delivered in a reasonable “counterfactual” | <ul style="list-style-type: none"> <li>For each action or commitment, we consider what a counterfactual scenario would look like, to determine whether NG is going beyond this.</li> <li>A counterfactual could be: meeting minimum standards, continuing a past approach, or simply acting like a reasonable, efficient company under “business as usual”</li> </ul> |  |   |   |  |

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# We have identified the following list of CVP items, some of which can be quantified, and some where we can provide an indication of magnitude

| BP chapter                           | CVP item   | Quantified for CVP? | Magnitude estimate? |
|--------------------------------------|--|---------------------|---------------------|
| <i>Stakeholder-led plan</i>          | Bespoke incentives on stakeholder engagement           |                     |                     |
| <i>Stakeholder-led plan</i>          | Stakeholder engagement strategy                        |                     |                     |
| <i>Gas on and off</i>                | Resilience solution at Blackrod                        | ✓                   |                     |
| <i>Environment &amp; communities</i> | Methane emissions reductions                           |                     | ✓                   |
| <i>Environment &amp; communities</i> | Business carbon footprint reduction                    |                     |                     |
| <i>Environment &amp; communities</i> | Construction carbon offsetting                         | ✓                   |                     |
| <i>Environment &amp; communities</i> | Carbon reduction from own energy use                   |                     | ✓                   |
| <i>Environment &amp; communities</i> | Natural environment improvements                       | ✓                   |                     |
| <i>Environment &amp; communities</i> | Community initiatives                                  | ✓                   |                     |
| <i>Environment &amp; communities</i> | Promoting supply chain best practice                   |                     |                     |
| <i>External threats</i>              | Security innovation projects                           | ✓                   |                     |
| <i>Connect</i>                       | Facilitate connection of smaller gas suppliers         |                     | ✓                   |
| <i>Whole energy system</i>           | Whole systems strategy                                 |                     | ✓                   |
| <i>Whole energy system</i>           | Information provision to enable whole system solutions |                     |                     |
| <i>Whole energy system</i>           | Innovation strategy                                    |                     |                     |
| <i>Information</i>                   | Information provision for increased transparency       |                     |                     |
| <i>Cross-chapters</i>                | Tougher incentives                                     |                     |                     |

See annex for the long list of actions we assessed to identify this list

Section 4 provides details on each of these actions, including why they go beyond business-as-usual

The following slides set out the quantified benefits for the items that can be quantified, and the estimates of magnitude.

# We have quantified five CVP areas, with a total consumer benefit of £186m

## Overall approach to quantification

- We evaluate benefits relative to a counterfactual scenario, which is determined on a case-by-case basis. The counterfactual is based on what we would expect a reasonable, ambitious business to do.
- CVP benefits are calculated net of costs to consumers associated with delivering those benefits.
- Ofgem’s guidance states that CVPs should demonstrate value for existing and future consumers. So we quantify value for consumers in T2, and in some cases beyond T2, depending on the expected duration of the CVP benefit.
- Net benefits are calculated in present value terms at 2020/21 (when we expect Ofgem will evaluate the CVP). We use the Government Green Book standard discount factors to discount future costs and benefits.
- CVP values are denominated in 2018/19 prices, in line with NGGT’s business plan.
- Where we have used inputs from NGGT or findings from research carried out by third parties, we have not assured the modelling or processes behind these inputs.

Details on methodology are provided in a separate methodology note.

| CVP item                            | Methodology for quantification   | Benefit to consumers (£m) |
|-------------------------------------|--|---------------------------|
| Resilience solution at Blackrod     | Cost benefit analysis, based on reduction in risk of supply interruption           | 172.7                     |
| Business carbon footprint reduction |  |                           |
| Construction carbon offsetting      | Present value of future carbon offsets   | 0.3                       |
| Natural environment improvements    | Benefit delivered by a 10% increase in current natural capital value               | 3.5                       |
| Community initiatives               | Present value of future spend on community initiatives                             | 0.6                       |
| Security innovation projects        | Present value of future cost savings delivered, net of relevant innovation funding | 9.2                       |
| <b>Total for CVP</b>                |  | <b>£186.4</b>             |

# A clawback mechanism should only be implemented in case of commitments not being delivered

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- The definition of CVP, as coming from actions that go beyond business as usual, means that most of them involve new and innovative ways of doing things.
- This means that the exact solutions that will be developed and the benefits that these will deliver are necessarily uncertain. This is reasonable and we don't think a clawback mechanism is required for small differences in outturn versus expected benefits.

Examples of areas with inherent uncertainty

- **Actions that involve optimising across the whole energy system.** NGGT is committing to collaborate with other players in the energy system to find solutions that take into account whole system costs and benefits, but it is not always yet clear exactly what those optimal solutions will be. We have only quantified areas where there is some degree of certainty of the likely benefits (i.e. Blackrod).
- **Actions that involve innovation.** Again, by the very nature of innovation, the outcomes of research and development are uncertain. We have only attempted to quantify areas where NGGT is making a very clear commitment to solve a specific problem (i.e. rollout of SCADA).

- On the other hand, a clawback mechanism should be implemented so rewards for any commitments that are not delivered are returned to consumers. For example, if any commitments rely on code changes or other external factors, these should be covered by a clawback.

“These figures are highly indicative because many of the input assumptions are very uncertain. They should only be interpreted as a rough indication of the possible order of magnitude of these benefits, given the assumptions made.”

# For four areas, we provide a rough indication of magnitude of benefits

| CVP item                                       | Methodology for quantification   | Benefit to consumers (£m) |
|--|--|---------------------------|
| Methane emissions reductions                   | Extrapolation of potential savings from a single site  | 2.2                       |
| Business carbon footprint reduction            |  |                           |
| Carbon reduction from own energy use           | Present value of carbon avoided through moving to 100% renewables for own use electricity      | 0.3                       |
| Facilitate connection of smaller gas suppliers | Assuming CLoCC enables 1% of the difference in green gas between different FES scenarios       | 33.4                      |
| Whole systems strategy                         | Rough estimate of potential savings if gas distribution costs can be reduced by a small amount | 2.2                       |
| <b>Total for rough estimates</b>               |  | <b>£38.1</b>              |

## Estimation approach (continued overleaf):

### Methane reduction

In T2, NGGT will invest in equipment to monitor methane leaks, and work on ways to reduce them.

Because monitoring equipment has not yet been installed, NGGT does not know how much methane is currently lost from fugitive emissions. However, it is possible to extrapolate information gathered from analysis at specific compressor sites to give a rough indication of the potential value of reducing methane emissions.

- NGGT could take measures to reduce methane emissions by approximately 10t per compressor site, or in total, 240t every year.
- Converted to CO2 equivalent, this implies annual CO2 savings of 6720t.
- Multiplying annual CO2 savings by the non-traded carbon price and calculating the NPV shows that, across T2, consumer benefits could be in the order of £2.2m.

### Green gas supply through CLoCC

Project CLoCC facilitates the connection of small and medium gas suppliers. Consumers benefit from lower wholesale prices and reduced greenhouse gas emissions through green gas suppliers (ETS considers green gas to be CO2 neutral). Given current uncertainty about the uptake of new connections any quantification is highly speculative.

As a rough estimate of the environmental benefits that CLoCC could deliver, we looked at the below.

- Using FES, we compare green gas supply between the ambitious ‘Two Degrees’ and the “Steady progression” scenarios. E.g. in 2026, the ambitious scenario assumes an additional 700m<sup>3</sup> of green gas.
- If we assume CLoCC will enable 1% of this difference, it would be responsible for c.25m<sup>3</sup> of extra green gas in T2.
- Across T2, the value of avoided natural gas (CO2 equivalent) would be c.£33m.

“These figures are highly indicative because many of the input assumptions are very uncertain. They should only be interpreted as a rough indication of the possible order of magnitude of these benefits, given the assumptions made.”

# Magnitude of benefits (continued)

| CVP item                                       | Methodology for quantification   | Benefit to consumers (£m) |
|--|--|---------------------------|
| Methane emissions reductions                   | Extrapolation of potential savings from a single site  | 2.2                       |
| Business carbon footprint reduction            |  |                           |
| Carbon reduction from own energy use           | Present value of carbon avoided through moving to 100% renewables for own use electricity      | 0.3                       |
| Facilitate connection of smaller gas suppliers | Assuming CLoCC enables 1% of the difference in green gas between different FES scenarios       | 33.4                      |
| Whole systems strategy                         | Rough estimate of potential savings if gas distribution costs can be reduced by a small amount | 2.2                       |
| <b>Total for rough estimates</b>               |  | <b>£38.1</b>              |

## Estimation approach:

### Whole energy systems

Not only is a WES approach key to decarbonising, it also has the potential to improve efficiency across networks. However, given the uncertainty around outcomes, an estimate of NGGT’s CVP from WES would be highly speculative.

With a set of assumptions however, we can give a sense of the magnitude of savings that could come from just one part of the WES – NGGT’s relationship with gas distribution networks.

- Assuming that the gas distribution sector as a whole faces annual total costs of c£2.2bn (this assumed value is equal to total costs for the gas distributions sector in 2017/2018), and
- Assuming WES could achieve efficiency gains of 0.1%, this gives annual totex savings for the distribution sector of c.£2m.

### Carbon reduction from own energy use

NGGT plans to purchase all of its own use energy from renewable sources. In a counterfactual scenario, NGGT would not be switching to 100% renewable energy and baseline costs would be the same because NGGT is not requesting funding for this action.

Because of uncertainty around the level of carbon emissions in a counterfactual scenario, we do not provide a full CVP quantification, but only an estimation of magnitude.

We estimate consumer benefits in the following way.

- We assume a counterfactual based on current emissions and compare this to a yearly target based on a linear decline in emissions from the current level to a net zero position at the end of T2. The difference between the two gives a number of tonnes of carbon abated in each year.
- We multiply the carbon reduction in each year with that year’s traded carbon price to provide a value of emissions abated.
- We then discount benefits to calculate the net present value. This gives a total consumer benefit in the T2 period of c.£0.3m.

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# STAKEHOLDER-LED PLAN

## Bespoke incentives on stakeholder engagement

What is the action?

- NGGT is proposing to introduce a new reputational ODI on community engagement. This would track the quality of NGGT's engagement with communities and their representatives before, during and after construction. Along with a series of metrics to measure performance.
- NGGT is also committing to improve tracking of wider stakeholder experience, with a bespoke reputational ODI, which tracks the feedback of stakeholders that have passed through particular service areas or participated in engagement events.

Through what channel(s) does it deliver consumer benefit?

Provides direct community benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- In a counterfactual scenario, we would expect a company like NGGT to carry out some degree of stakeholder engagement, as well as specific engagement with communities around construction activities. Engagement on construction projects plays a big role in how communities perceive these projects, and can help NGGT understand how to minimise the disruption caused by these projects.
- NGGT is going beyond this, by working to ensure that engagement is carried out in an effective way that reflects stakeholder preferences. Proposing reputational ODIs shows a strong commitment not only to engage with communities and wider stakeholders, but to improve this engagement, and to collect evidence to track what impact this is having.

Is it quantified?

No, while improved engagement is likely to have positive impacts, we do not have quantitative information on how much value consumers place on this.

# STAKEHOLDER-LED PLAN

## Stakeholder engagement strategy

What is the action?

- NGGT is committing to an annual engagement process that it will implement throughout RIIO-2. It will involve:
- Establishing stakeholder and consumer priorities through direct contact such as workshops, as well as wider research including surveys and online tools
  - Using findings from this initial engagement to agree GT priorities with the Stakeholder User Group;
  - Further engaging with stakeholder and consumers on high impact/high interest topics, through tailored engagement on each topic;
  - Triangulating findings of different engagement activities and other sources;
  - Reporting back performance and findings to stakeholders and consumers through workshops and other channels.

Through what channel(s) does it deliver consumer benefit?

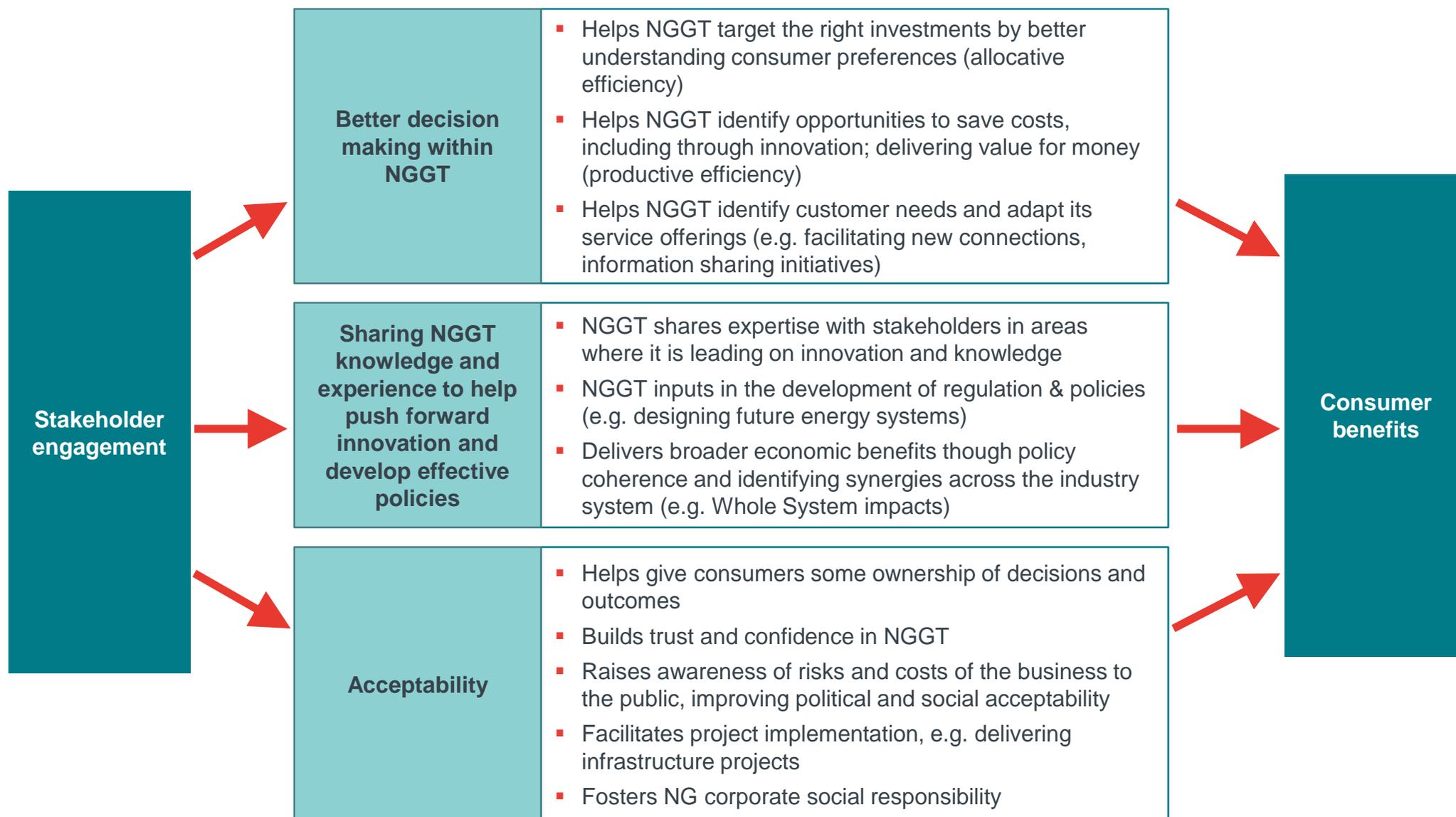
Directly through communities, but indirectly through all channels, as stakeholder engagement informs many of NGGT's actions



How does it deliver additional benefit?

- Companies are required to develop their business plans through engaging with stakeholders and understanding what their priorities are. NGGT is going beyond this by committing to an ambitious plan of continued stakeholder engagement throughout the price control.
- As described in more detail on the following slide, stakeholder engagement delivers consumer benefits through a variety of channels, as it:
  - Leads to better decision making within NG;
  - Provides a channel through which NGGT can share its capacities and knowledge to develop regulation and policies;
  - Helps to increase acceptability of NGGT's actions.
- However, the resulting benefits cannot be robustly quantified due to the complexity of these channels, and the uncertainty around how consumers value engagement.

# Stakeholder engagement delivers consumer benefits through a number of channels



# GAS ON & OFF

## Resilience solution at Blackrod

What is the action?



Through what channel(s) does it deliver consumer benefit?

Lower bills, improved reliability of supply



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- As part of business as usual, NGGT has in place extensive plans around asset health, asset management, network resilience, system operation. This includes specific investments such as at the Bacton and King's Lynn sites. NGGT has also engaged with stakeholders on each of these topics, to ensure that its plans meet stakeholder needs and deliver consumer benefits.



Is it quantified?

Yes, the consumer benefits of this action have been quantified based on a cost benefit analysis (see overview section).

# ENVIRONMENT & COMMUNITIES

## Methane emissions reductions

What is the action?

NGGT will increase its focus on reducing all methane emissions because methane is a major contributor to climate change. In particular, NGGT will monitor leaks on the network and work on ways to reduce them.

Through what channel(s) does it deliver consumer benefit?

Environmental benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- This action is a key part of NGGT's climate commitment, helping to deliver a more sustainable network for current and future consumers. One of the most significant environmental impacts of operating NGGT's network comes from methane emissions. Methane is 25 times more potent a greenhouse gas than carbon dioxide, and is leaked from the network, particularly at sites such as compressor stations.
- NGGT has heard from its stakeholder engagement that stakeholders would like to see better monitoring of fugitive emissions. Better monitoring would help NGGT make more informed decisions.
- NGGT is therefore committing to establishing a baseline for emissions leaks on the network by installing real-time methane monitoring equipment at high-risk points on the network. This follows on from NGGT's RIIO-1 innovation project, MoRFE.
- In a counterfactual, NGGT would continue to attempt to reduce methane emissions but without investing in innovative monitoring equipment. Installing this equipment will help NGGT optimise its maintenance and asset health programmes to reduce emissions more effectively.
- NGGT will also use innovative recompression equipment when carrying out maintenance works that require pressure reduction, further reducing the amount of methane that escapes into the atmosphere.

Is it quantified?

- NGGT is currently not able to measure exact quantities of methane emissions, due to a lack of monitoring technology, and is therefore not able to commit to an exact reduction target. Part of this commitment is to install monitoring equipment, so precise commitments can be made in T3.
- However, we provide a rough indication of the magnitude of potential benefits to consumers based on an extrapolation of reduction possibilities at specific compressor sites (see overview section).

# ENVIRONMENT & COMMUNITIES

## Business carbon footprint reduction

What is the action?

- Reduce carbon emissions from operational transport by 22%, by moving to 30% low carbon-fuelled vehicles
- Reduce carbon emissions from business transport
- Reduce carbon emissions from energy use by 100% in office buildings, ensuring the energy used in office buildings is from renewable sources, and installing solar panels at all compressor sites
- Achieve carbon neutral construction by 2026
- Engage with supply chain to set carbon reduction targets for suppliers

Through what channel(s) does it deliver consumer benefit?

Environmental benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- In a counterfactual business as usual scenario, NGGT would likely still take some actions to reduce its business carbon footprint, as consumers are likely to expect this from most businesses.
- NGGT has gone beyond this by:
  - Engaging extensively with stakeholders on environmental issues and stakeholders. NGGT has found that stakeholders want NGGT to set ambitious goals for reducing its carbon footprint, and want NGGT to engage more with its supply chain on environmental matters;
  - Responding to these messages by committing to reduce carbon from many different sources across its business;
  - In particular, going beyond its own business by continuing to engage with its supply chain to have a wider environmental impact.

Is it quantified?

We have quantified the benefits of carbon neutral construction (see overview section). For 100% renewable energy in office buildings, we have provided an order of magnitude estimate (due to uncertainty around counterfactual emissions). We have not attempted to quantify benefits of actions such as installing solar panels or switching to low carbon vehicles, either because carbon reductions cannot be predicted with certainty, or difficulty in establishing a counterfactual. It is also not possible to quantify the impact of supply chain engagement because outcomes depend on third party actions.

# ENVIRONMENT & COMMUNITIES

## Natural environment improvements

What is the action?

NGGT is committing to enhance the value of the natural assets of its non-operational land by 10% over the course of T2.

Through what channel(s) does it deliver consumer benefit?

Environmental and community benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- There is no requirement for NGGT to improve the natural environment on its land, and in a counterfactual scenario NGGT could do nothing with its estate, and would not deliver any benefits.
- However, NGGT has been working towards measuring the natural capital and biodiversity value of its non-operational land, and has set a target to improve this by 10% over T2. This will bring benefits to both the natural environment and to communities that can use this land. Because these types of natural capital improvements are relatively low-cost, the consumer benefits far outweigh the costs.
- NGGT has also proactively identified 77 sites that are already redundant or that will become redundant during T2, and has engaged with stakeholders on how redundant assets should be managed and what should be done with the land. Stakeholders have said that they would like the land to be returned to a good state, and that these projects are highly valuable to communities.

Is it quantified?

Yes, benefits of the 10% improvement in value of non-operational land have been quantified using a natural capital valuation approach (see overview section).

# ENVIRONMENT & COMMUNITIES

## Community initiatives

|  |  |
|--|--|
| What is the action?  | <ul style="list-style-type: none"><li>▪ Commit 0.3% of major project spend to consumer-led community improvement.</li><li>▪ Help mitigate the effects (to vulnerable consumers in particular) associated with major infrastructure changes that are likely to be carried out as part of the transition to a low carbon energy system.</li></ul>  |
| Through what channel(s) does it deliver consumer benefit?  | Community benefits    |
| How does it go beyond minimum requirements and NG's core activities to deliver additional benefit? | <ul style="list-style-type: none"><li>▪ National Grid is going beyond minimum requirements by committing to spend on community initiatives. NGGT is not requesting additional funding to cover this spending, so in a counterfactual scenario, this money would be returned to shareholders.</li><li>▪ By committing this money to community initiatives, particularly those that are led by consumers, NGGT is ensuring that communities benefit and that money is allocated to areas valued by consumers.</li><li>▪ A study carried out by Auriga for Severn Trent Water, United Utilities and Thames water found that every £1 invested by the water companies in social schemes delivered £3.06 of benefit. We would similarly expect there to be a multiplier for the community spending carried out by NGGT. However, we have not used this multiplier for any quantification because the initiatives covered in the study (more around support for vulnerable customers of the water companies) may not be comparable to those carried out by NGGT.</li></ul> |
| Is it quantified?  | Yes, benefits have been quantified (see overview section).   |

# ENVIRONMENT & COMMUNITIES

## Promoting supply chain best practice

What is the action?

Promoting supply chain best practice, including:

- embed sustainable and responsible procurement sourcing in the procurement tender process;
- promoting all our UK suppliers to pay the real living wage; encouraging technical skills development;
- continuing our activities to implement human rights and supply chain diligence.

Through what channel(s) does it deliver consumer benefit?

Community benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- A responsible business would embed best practice around pay, human rights, employee development, etc. in its own business.
- NGGT is going beyond this by promoting best practice in its supply chain. Because of the size and reach of NGGT, this is likely to have considerable benefits for communities, the economy and even beyond where suppliers are located overseas.
- However, we note that over time, as this kind of supply chain management becomes business as usual, these types of actions will become a minimum expectation rather than what we see as stretching commitments.

Is it quantified?

No, it is not possible to robustly quantify the benefits delivered through the supply chain because data (for example on wages) is not available for organisations in NGGT's supply chain.

# EXTERNAL THREATS

## Security innovation projects

What is the action?

NGGT is committing to roll out an opensource SCADA innovation initiative (developed through NIA) on compressor sites, which will offset the full replacement of control systems from RIIO-2 to RIIO-3. This will ensure systems are security compliant in RIIO-2 while the replacement strategy is refreshed, helping to ensure greater cyber resilience across the

Through what channel(s) does it deliver consumer benefit?

Lower bills



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- A key part of NGGT's role is to develop and deliver resilience to cyber attacks and other external threats through a risk-based approach, ensuring that critical infrastructure is suitably protected.
- In a counterfactual scenario, NGGT would increase cyber resilience by employing a third party solution to upgrade the control systems.
- NGGT is going beyond this scenario by implementing innovative solutions to ensure that better resilience can be achieved at lower cost. The rollout of the SCADA innovation therefore delivers significant cost savings to consumers. The SCADA upgrade was developed in T1, and rolling it out in T2 involves NGGT continuing to go beyond the business as usual approach of using a third party solution in this next phase.
- By deploying opensource SCADA during T2, this will help to avoid or defer asset replacement, reducing costs beyond what could be achieved purely through operational efficiencies. These cost savings will benefit consumers through lower bills in T2.

Is it quantified?

Yes, benefits to consumers have been quantified based on cost savings achieved, compared to using a third party solution (see overview section).

# CONNECT

## Facilitate connection of smaller gas suppliers

What is the action?

NGGT is committing to implement improvements from its Customer Low Cost Connections (CLoCC) project into business as usual, enabling small and medium connections for less than £1m and in less than 12 months from initial enquiry to 'gas on'. This will facilitate the connection of smaller gas suppliers to the network (e.g. bio gas plants).

Through what channel(s) does it deliver consumer benefit?

Lower wholesale energy prices, environmental benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- NGGT has issued all customer connections on time in T1, despite an increasingly challenging environment, including changes such as increased interest from new entrants with smaller flow rates, such as biogas and compressed natural gas connections, and increased disconnection and decommissioning activity.
- As well as continuing to meet requirements despite these challenges, NGGT has also innovated through project CLoCC in T1, which was driven by engagement with customers who said that connection costs and timescales could create barriers to connecting to the network, particularly for smaller, non-traditional producers and consumers. Improvements including a new online gas connection application, pre-approved and pre-appraised standard design connections, and improved commercial terms.
- NGGT is committing to implement these improvements into business as usual, going beyond the minimum standards required for connections. By helping small and non-traditional suppliers connect to the network, this should deliver benefits to consumers through lower wholesale energy prices, as well as environmental benefits if it enables the connection of more biogas suppliers to the network.

Is it quantified?

Consumer benefits cannot be robustly quantified due to uncertainty around the impact that CLoCC will have on the connection of small and medium gas suppliers, and the resulting impact on wholesale energy prices and the environment. However, we provide a rough indication of the magnitude of potential benefits to consumers based on assuming CLoCC will enable a small proportion of green gas in the FES scenarios (see overview section).

# WHOLE ENERGY SYSTEM

## Whole systems strategy

What is the action?

NGGT has an extensive whole systems strategy in place for T2.

1. Drive forward the development of whole systems options and solutions that benefit consumers:
  - a. the formation of gas markets plan framework;
  - b. whole systems options and solutions to achieve net zero;
  - c. options for gas transmission in relation to decarbonisation of heat, looking specifically at the options around hydrogen;
  - d. collaboration with GDNs, BEIS and others on an agreed H2 workplan.
2. Specific investments in T2:
  - a. investing in skilled people;
  - b. continuing to invest in IT systems, making sure they are fit for the future;
  - c. replacing the current balancing and capacity system 'Gemini', making sure it is adaptable for change;
  - d. £30m innovation spending scoping options to achieve net zero targets.
3. Project roll-outs in T2:
  - a. Improving open data sharing and governance across the energy industry and restricting access only in instances of security, privacy, legal or consumer risks;
  - b. collaborating and sharing data with network companies in order to build a wholistic system view.

Through what channel(s) does it deliver consumer benefit?

Lower bills, lower wholesale energy prices, environmental benefits



Continued overleaf...

# WHOLE ENERGY SYSTEM

## Whole systems strategy (continued)

How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- NGGT does not have any specific minimum requirements around whole systems, so we would expect that a feasible counterfactual scenario would be a continuation of a more traditional approach to running a network, making decisions and developing solutions in isolation, and taking a fairly static view of the energy system when planning for the future.
- NGGT instead is committing to continue progress made in T1 towards considering whole system approaches when assessing investment options. This involves close collaboration with other networks and wider stakeholders.
- NGGT is leading on innovation in key areas such as decarbonisation of heat, including detailed plans for hydrogen projects.
- NGGT is engaging and collaborating with numerous other players in the energy sector, including gas distribution networks, BEIS, ENA, shippers, and the European Network of Transmission System Operators for Gas (ENSOG), to ensure that different players are aligned and working together to deliver industry changes around decarbonisation and the future of gas.
- We note that over time, as the focus on whole systems increases and evolves into business as usual, we expect that these types of activities will be seen as minimum requirements rather than stretching commitments.

Is it quantified?

- This cannot be quantified robustly, as the actual benefits that will be realised through this strategy during T2 are uncertain and rely on third parties in many cases. The impact of third party actions on wholesale energy prices is also complex to model and The benefits therefore cannot be robustly quantified.
- However, we provide a rough estimation of possible savings to consumers if collaboration enables gas distribution networks to achieve cost efficiency gains of 0.1% (see overview section).

# WHOLE ENERGY SYSTEM

## Information provision to enable whole system solutions

What is the action?

- Improving open data sharing and governance across the energy industry and restricting access only in instances of security, privacy, legal or consumer risks. Investing in people and IT infrastructure to improve the data provision capabilities.
- Collaborating and sharing data with network companies in order to build a whole system view.

Through what channel(s) does it deliver consumer benefit?

Lower bills, lower wholesale energy prices, environmental benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- We would expect that a business-as-usual approach to information sharing would be to make information available to third parties when needed.
- NGGT is going beyond this by committing to a significantly more proactive approach to information sharing, by creating a default position where all information is open, unless there are reasons not to, such as security or privacy concerns.
- NGGT is responding to stakeholder engagement where it has heard that stakeholders want more information and faster access to it.
- This commitment will help to ensure that NGGT facilitates technological developments and whole systems work carried out by third parties, as well as saving costs for third parties by ensuring it doesn't act as a barrier to those parties planning ahead and running their businesses efficiently.
- All of this benefits consumers as can help the whole energy system operate more efficiently, reducing wholesale energy prices, and can have environmental benefits.
- We note that over time, as the focus on whole systems increases and evolves into business as usual, we expect that these types of activities will be seen as minimum requirements rather than stretching commitments.

Is it quantified?

We have not attempted a quantification because there is too much uncertainty around the impact that information provision will have, particularly because most benefits will be derived by how third parties use this information.

# WHOLE ENERGY SYSTEM

## Innovation strategy

What is the action?

- NGGT has set out a detailed innovation strategy, focusing on key themes across all parts of the business. The three overarching themes are “fit for the future”, “ready for decarbonisation”, and “decarbonised energy system”.
- Detailed themes include: system readiness & advanced analytics, robots, compressor strategy, smart networks, augmented reality, artificial intelligence and machine learning, new materials and printing parts, hydrogen mix, future markets, and so on.

Through what channel(s) does it deliver consumer benefit?

Lower bills, lower wholesale energy prices, environmental benefits



How does it go beyond minimum requirements and NG's core activities to deliver additional benefit?

- We would expect that in a counterfactual scenario, a reasonable business would undertake innovation activities that are likely to result in returns in the short to medium run, realising efficiencies around core activities.
- NGGT is going beyond this by committing to a wide-ranging and long-horizon (looking out to 2050) innovation strategy, and is also committing to conduct much of this as business as usual.
- Many of the areas that NGGT is focusing on contribute to decarbonisation, for example networks capable of notifying when a leak is occurring, work on carbon capture and storage, and extensive research into transportation of hydrogen. Decarbonisation of heat is an area that stakeholders indicated they particularly wanted to see NGGT supporting.

Is it quantified?

We cannot quantify benefits robustly as, by definition, there is a lot of uncertainty around the outcomes that future innovation initiatives will have, and how these will eventually feed through to consumers.

# INFORMATION

## Information provision for increased transparency

|  |  |
|--|--|
| What is the action?  | <ul style="list-style-type: none"><li>▪ Providing more transparency around National Grid operational performance.</li><li>▪ Carrying on listening to different stakeholders on a continuous basis, and continuing to update the business plan with stakeholders.</li><li>▪ Retaining the independent stakeholder user group.</li></ul>   |
| Through what channel(s) does it deliver consumer benefit?  | Community benefits, possibly lower bills     |
| How does it go beyond minimum requirements and NG's core activities to deliver additional benefit? | <ul style="list-style-type: none"><li>▪ NGGT is expected to be transparent and has a range of reporting requirements around its spending and the outputs it is delivering.</li><li>▪ NGGT is committing to go beyond these requirements and further increase transparency by working with stakeholders to understand how best to tailor its reporting so that it is easy to use and covers what stakeholders want to know. Taking a more stakeholder-driven approach to reporting will help communities and consumers engage more with NGGT if they wish to.</li><li>▪ NGGT is also planning to retain an independent stakeholder user group throughout the price control, meaning that it is continually subject to additional scrutiny and challenge, as well as gaining additional insights from other sectors. This additional element of challenge can help NGGT deliver outputs that better reflect stakeholder needs, as well as pushing NGGT to be as efficient as possible.</li></ul> |
| Is it quantified?  | No, we have not attempted a quantification because we do not have information on the value that consumers place on transparency and the ability to engage in the business plan updating process.   |

# CROSS CHAPTERS

## Tougher incentives

### What is the action?

NGGT is proposing to toughen a number of existing incentives, despite an increasingly challenging environment. The key incentives that NGGT is proposing to toughen, and how they deliver benefit, are summarised below.

| Incentive                  | What is different compared to T1?  | How consumer benefit is delivered    |
|----------------------------|--|---|
| Maintenance change and use | <ul style="list-style-type: none"><li>NGGT is proposing to expand existing schemes to cover a wider range of maintenance activities supported by stakeholder feedback (aligning 10% of asset replacement and reinforcements to customer outages).</li><li>The incentive will be tougher to perform against:<ul style="list-style-type: none"><li>The volume of planned maintenance will be two to three times higher in T2 than T1, making the incentive harder to perform against.</li><li>More varied use of assets is also likely to make asset weak and resulting maintenance schedules more difficult to predict.</li></ul></li></ul> | Minimising the number of maintenance days used, and minimising the number of changes to planned maintenance days helps to reduce costs to transmission system users, and this ultimately can help reduce wholesale costs that consumers pay.  |
| Demand forecasting         | <ul style="list-style-type: none"><li>NGGT is proposing to make the incentive tougher by reducing the cap from £10m per annum per scheme, to £8m, while retaining the current incentive collars.</li><li>In addition, demand forecasting is becoming increasingly challenging. Demand volatility has increased by about 20% over T1 and this is likely to continue, meaning that the scheme will become more challenging.</li></ul>  | Providing accurate demand forecasts for day ahead (D-1) and two to five days ahead (D-2 to D-5) helps the market function efficiently, particularly helping smaller participants, who do not produce their own forecasts (which can cost £50k-£100k p.a.) operate effectively. This contributes to lower wholesale energy prices for consumers. |
| Residual balancing         | <ul style="list-style-type: none"><li>While NGGT is not proposing to change the target, the incentive is becoming more challenging because of the changing energy landscape. These changes include increasing linepack variability, and larger demand swings, and have resulted in an increased need for trading (up from 10-20% of days in the year at the start of RIIO-1, to 20-50% now).</li></ul>   | Efficient balancing of supply and demand and minimising market impacts helps to keep wholesale energy prices low.   |

### Is it quantified?

No, setting ambitious targets on maintenance days, demand forecasting and residual balancing deliver benefits for the supply chain and/or directly connected customers. However, the extent to which these actions lead to lower wholesale prices cannot be reliably determined.



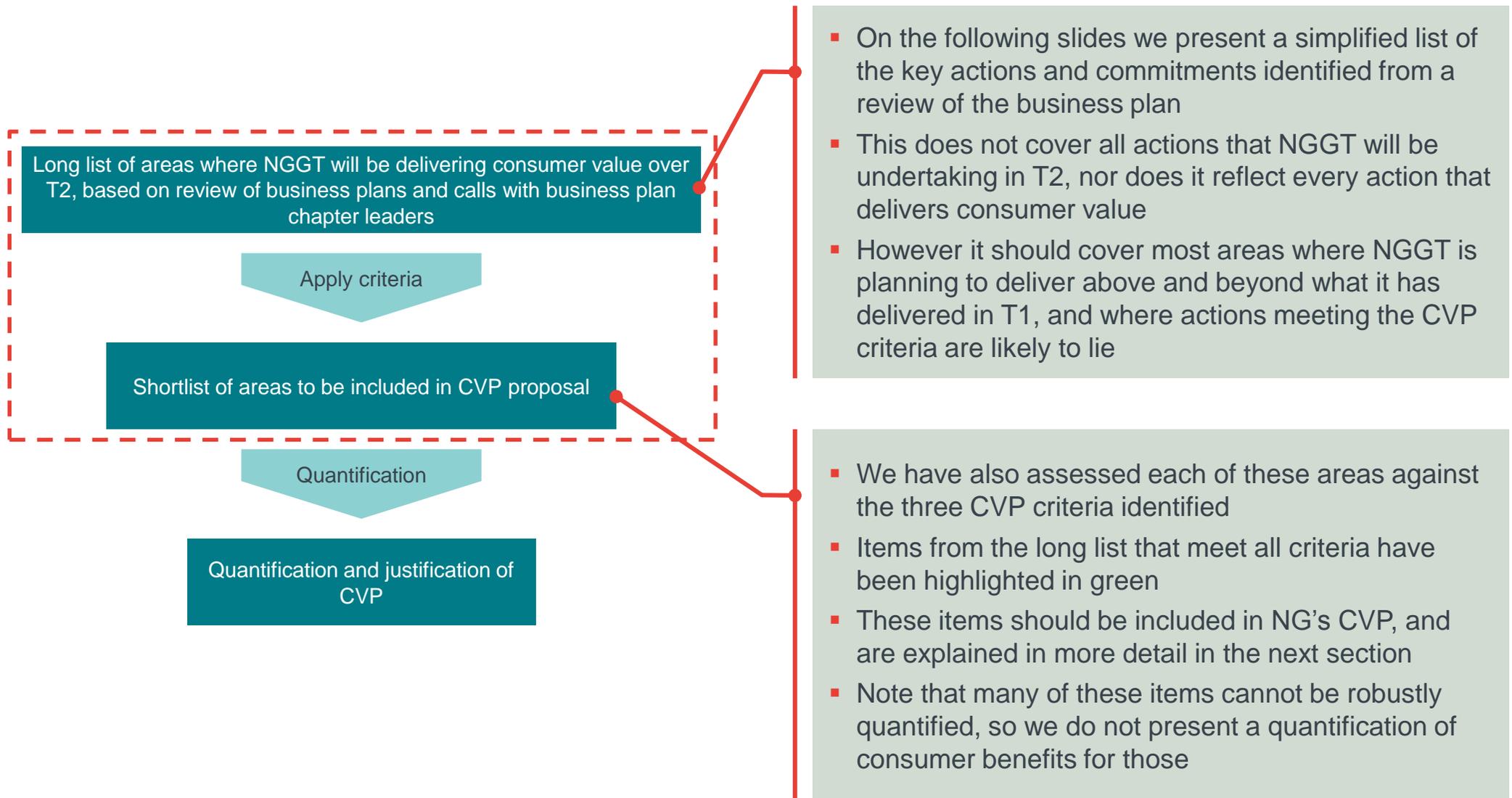
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# ANNEX A: Ofgem has provided a “snapshot table” that companies should provide on their CVP (1/1)

| RIIO-2: Consumer Value Proposition (CVP) Snapshot Table |   |  |   |  |   |  |
|---|---|--|---|--|---|--|
| CVP proposal name                                       | Description   | Where is the CVP proposal set out in the Business Plan?  | Costs and value associated with the CVP proposal  |  |   | Are there any associated outputs, uncertainty mechanisms or CVP proposals in your Business Plan?   |
|   |   |  | Funding in Business Plan?   | Forecast cost / BPDT reference   | Value to consumer   |  |
|   | A brief description of the CVP proposal (1-2 sentences) | Please provide all references to the sections of the Business Plan where information on the CVP proposal is set out. | Have costs associated with this CVP proposal been included in your baseline funding forecast (Yes / No) | If costs have been included, please state where to find the relevant costs in the BPDT (and state the £m figure here).<br><br>If any costs associated with the CVP proposal cannot be identified in the BPDT, please explain why | What is the monetised value of the proposal to consumers (£m) | For example, a separate uncertainty mechanism or an additional output which could potentially interact with this one.<br><br>Please provide a the name of any associated output, UM or CVP proposal and provide references to the sections of the Business Plan where information on the associated output or UM is set out. |
| <i>CVP proposal 1...</i>                                |   |  |   |  |   |  |
| <i>CVP proposal 2...</i>                                |   |  |   |  |   |  |

Source: <https://www.ofgem.gov.uk/publications-and-updates/riio-2-business-plans-draft-guidance-document>

# ANNEX B: identifying a long list of actions, and using criteria to select CVP items (1/3)



# ANNEX B: identifying a long list of actions, and using criteria to select CVP items (2/3)

| Action/commitment  | Does it benefit consumers? | Does it go beyond and deliver additional value? | Is it a clear commitment in the business plan? |
|--|----------------------------|---|--|
| Bespoke incentives on stakeholder engagement                     | Yes                        | Yes   | Yes  |
| Stakeholder engagement strategy                                  | Yes                        | Yes   | Yes  |
| Testing stakeholder appetite for annual capability report        | Yes                        | No  | No   |
| Asset health programme   | Yes                        | No  | Yes  |
| Maintenance projects   | Yes                        | No  | Yes  |
| Asset investments  | Yes                        | No  | Yes  |
| Site work at Bacton and King's Lynn                              | Yes                        | No  | Yes  |
| Human resourcing   | Yes                        | No  | Yes  |
| Resilience solution at Blackrod                                  | Yes                        | Yes   | Yes  |
| Isolation valves at Tirley                                       | Yes                        | No  | Yes  |
| Increased human resource and IT capabilities                     | Yes                        | No  | No   |
| New compressors  | Yes                        | No  | Yes  |
| Reduction in methane emissions                                   | Yes                        | Yes   | Yes  |
| Reduction in business carbon footprint                           | Yes                        | Yes   | Yes  |
| Natural environment improvements                                 | Yes                        | Yes   | Yes  |
| Contractual obligations with landowners                          | Yes                        | No  | Yes  |
| Promote local employment   | Yes                        | No  | Yes  |
| Community initiatives  | Yes                        | Yes   | Yes  |
| Promoting supply chain best practice                             | Yes                        | Yes   | Yes  |
| Protection of network integrity                                  | Yes                        | No  | Yes  |
| Improved ability of the network to recover from malicious events | Yes                        | No  | Yes  |
| Improved cyber resilience  | Yes                        | No  | Yes  |
| Physical security upgrades                                       | Yes                        | No  | Yes  |
| Security innovation projects                                     | Yes                        | Yes   | Yes  |
| Online connections platform for customers                        | No                         | Yes   | Yes  |

# ANNEX B: identifying a long list of actions, and using criteria to select CVP items (3/3)

| Action/commitment   | Does it benefit consumers? | Does it go beyond and deliver additional value? | Is it a clear commitment in the business plan? |
|---|----------------------------|---|--|
| Facilitate connection of smaller gas suppliers            | Yes                        | Yes   | Yes  |
| Whole systems strategy                                    | Yes                        | Yes   | Yes  |
| Information provision to enable whole systems solutions   | Yes                        | Yes   | Yes  |
| Innovation strategy                                       | Yes                        | Yes   | Yes  |
| Information provision for increased transparency          | Yes                        | Yes   | Yes  |
| Fixing upfront allowances for information provision       | No                         | No  | Yes  |
| Efficiency savings  | Yes                        | No  | Yes  |
| Competitive procurement for smaller projects              | Yes                        | No  | Yes  |
| Competitive tendering processes                           | Yes                        | No  | Yes  |
| Household bills kept at or below RIIO-1 level             | Yes                        | No  | Yes  |
| Pursuing zero harm safety levels                          | Yes                        | No  | Yes  |
| Continued routine and preventative safety activities      | Yes                        | No  | Yes  |
| Human resources in safety                                 | Yes                        | No  | No   |
| 24/7 standby cover, emergency planning, etc.              | Yes                        | No  | Yes  |
| Helicopter and line walking surveys                       | Yes                        | No  | Yes  |
| Maintenance of emergency response and repair for pipework | Yes                        | No  | Yes  |
| Maintenance of properties                                 | Yes                        | No  | No   |
| <b>Tougher incentives:</b>                                |                            |   |  |
| Residual balancing incentive                              | Yes                        | Yes   | Yes  |
| Maintenance incentive                                     | Yes                        | Yes   | Yes  |
| Capacity constraint incentive                             | Yes                        | No  | Yes  |
| Shrinkage   | Yes                        | No  | Yes  |
| Greenhouse gas incentive                                  | Yes                        | No  | Yes  |
| Demand forecasting incentive                              | Yes                        | Yes   | Yes  |
| Customer satisfaction incentive                           | No                         | Yes   | Yes  |

# ANNEX C: Comparing the current list of CVP areas with those set out in the October business plan (1/2)

| Chapter                                | NGGT CVP proposal based on October plan submission  | Reference # | In current CVP? | Comment                      |
|--|---|-------------|-----------------|------------------------------|
| <b>9. Stakeholders</b>                 | Embedding stakeholder and consumer engagement into our business in the RII0-2 period  | 1           | ✓               |                              |
| <b>11. Network capability</b>          | Delivering the network capability that meets the needs of our stakeholders and provides value for money for consumers   | 2           | ✗               |                              |
| <b>21. Safety</b>                      | Our safety ambition is to maintain our first-class level of safety whilst continuing to pursue the highest level of safety culture maturity   | 2           | ✗               |                              |
| <b>22. Gas on and off</b>              | Invest £881 in our asset health programme to maintain our current level of reliability and availability, supported by an annual process to assess and define network capability       | 3           | ✗               |                              |
|  | Focused asset health interventions at Bacton and King's Lynn  | 4           | ✗               |                              |
|  | New investment at 2 locations to increase the resilience of the network and protect consumers from disruptions to supply that arise from planned or unplanned maintenance activities. | 5           | ✓               | Quantified for Blackrod only |
|  | Build new gas system operation capabilities: to analyse and manage risk of not meeting stakeholder requirements, optimising operation of the network and developing new market tools. | 6           | ✗               |                              |
|  | Residual balancing – a refined incentive scheme to efficiently deliver the residual balance of the network  | 7           | ✓               | Combined CVP 7, 8, 23        |
|  | Maintenance incentive.  | 8           | ✓               | Combined CVP 7, 8, 23        |
|  | Incentive to manage entry and exit capacity constraints.  | 9           | ✗               |                              |
| <b>24. Environment and communities</b> | Activities to ensure compliance with MCP legislation by 2030.   | 10          | ✗               |                              |
|  | Our overall climate commitment  | 11          | ✓               | Combined CVP 11, 13, 14      |
|  | Establish baseline for methane emissions leaks on the network through improved monitoring, and use that information to begin to reduce.   | 12          | ✓               |                              |
|  | 30% commercial vehicle fleet to be replaced by low-carbon fuelled vehicles by 2026.   | 13          | ✓               | Combined CVP 11, 13, 14      |
|  | Reduce carbon impact of construction activities and offset residual for major projects  | 14          | ✓               | Combined CVP 11, 13, 14      |
|  | Shrinkage incentive to minimise cost of shrinkage to consumers through efficient system operation and energy procurement.   | 15          | ✗               |                              |
|  | Greenhouse gas incentive to minimise the impact which our operations have on the environment through emissions.   | 16          | ✗               |                              |
|  | Addressing redundant assets at 77 sites, assets and asset groups.   | 17          | ✗               |                              |
|  | Assign 0.3% of major construction projects to supporting local communities  | 18          | ✓               |                              |
| Promoting supply chain best practice   | 19  | ✓           |                 |                              |

# ANNEX C: Comparing the current list of CVP areas with those set out in the October business plan (2/2)

| Chapter  | NGGT CVP proposal based on October plan submission  | Reference # | In current CVP? | Comment               |
|--|---|-------------|-----------------|-----------------------|
| 25. Whole energy system                        | Developing options for gas transmission in relation to decarbonisation of heat, looking specifically at the options around hydrogen; collaborate across all sectors and vectors to develop whole energy system options and solutions to achieve net zero; collaboration on an agreed H2 workplan. | 20          | ✓               | Combined CVP 20, 22   |
|  | We will invest in BAU innovation across all our activities. We will collaborate and partner with third parties on wider energy transition projects that will help determine the energy transition options to a net zero future.   | 21          | ✓               |                       |
|  | Lead the formation of gas markets plan framework, including a steering group to prioritise programmes of work.  | 22          | ✓               | Combined CVP 20, 22   |
| 26. Information sharing                        | Demand forecasting incentive over a range of timescales to help the industry make efficient physical and commercial decisions about balancing supply demand.  | 23          | ✓               | Combined CVP 7, 8, 23 |
|  | We will champion open data sharing and governance across the energy industry, working with network companies to build a whole system view   | 24          | ✓               |                       |
|  | We will be more transparent than ever by continuing to provide regulatory reporting, updating our business plan with you, retaining the independent stakeholder user group and ensuring our leadership team's remuneration is clearly aligned with delivering outputs.                            | 25          | ✓               |                       |
| 27. Connections                                | Deliver improvements to the connection process, responding to evolving customer needs   | 26          | ✓               |                       |
|  | Enhance the service we provide to our customers, with an ambition to achieve an average customer satisfaction score of 9 by the end of the period.  | 27          | ✗               |                       |
| 28. Efficient and affordable                   | We use native competition to extract value from our supply chain,   | 28          | ✗               |                       |
|  | We are making an ambitious commitment to further reduce our operating costs by £6m per year.  | 29          | ✗               |                       |
| <b>Other CVP items not previously covered:</b> |   |             |                 |                       |
|  | Natural environment improvements (natural capital)  |             | ✓               |                       |
|  | Security innovation (Opensource SCADA upgrade)  |             | ✓               |                       |
|  | Bespoke incentives on stakeholder engagement  |             | ✓               |                       |