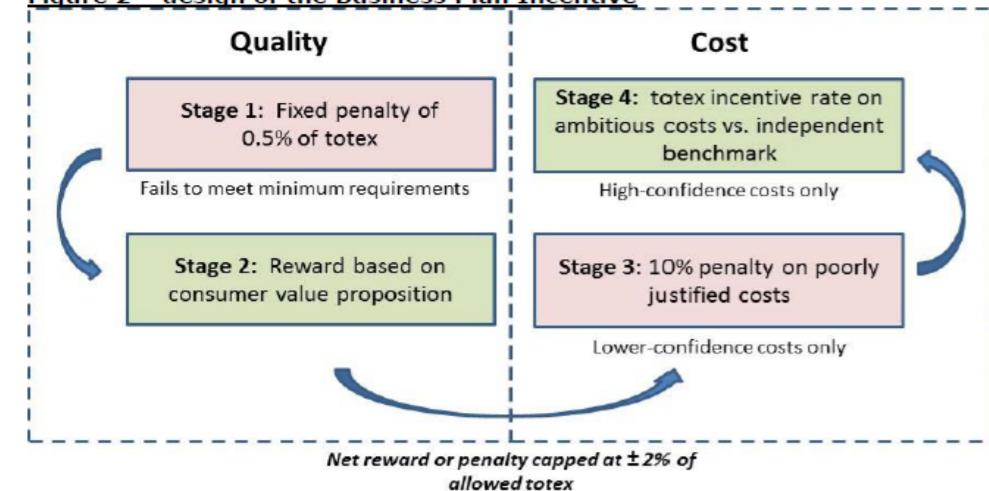


**A. Summary**

Strategic Objective	CVP area	Measure	Value (£m)
Sector Leading Efficiency	CVP 1a: Reducing the risk of consumers overpaying: our Certain View and output	Cost savings from counterfactual using T1 data as proxy	75.0
	CVP 1b: Reducing the risk of consumers overpaying: volume driver unit cost allow	Cost savings from counterfactual using T1 data as proxy	8.5
Safe and Secure Network Operations and Stakeholder-Led Strategy	CVP 2a: Connecting for Society: bespoke commercial and connections services	Carbon savings	59.5
	CVP 2b: Connecting for Society Network Access Policy	Constraint cost savings	5.0
	CVP 2c: Connecting for Society: Local Energy Area Partnerships	Cost savings	6.6
Leadership in Sustainability	CVP 3a: Promoting the natural environment: biodiversity net gain	Consumer amenity value from willingness to pay study	158.6
	CVP 3b: Promoting the natural environment: VISTA	Consumer amenity value from willingness to pay study	30.7
	CVP 4: Supporting local communities: local supply chains	Total spend in local supply chain	6.4
<b>Total</b>			<b>350.3</b>

## B. Ofgem CVP requirements

Figure 2 – design of the Business Plan Incentive



Ofgem (2019) RIIO-2 Business Plans – Updated Guidance, September.

### Stage 2: the Consumer Value Proposition

5.12. Stage 1 of the BPI seeks to ensure that Business Plans meet the minimum requirements. Under the Stage 2 of the BPI, we will assess what additional value beyond the minimum requirements the plan offers. Only companies that are assessed to have met all of the minimum requirements at Stage 1 will be able to earn a reward under this part of the BPI.

5.13. Under the CVP, Business Plans should set out the ways in which their plan goes beyond the minimum requirements and how this will lead to benefits for consumers. Ofgem will assess the proposals included within the CVP and determine whether a reward should be paid to the company and, if so, the size of the reward.

5.14. The CVP must be summarised clearly within the Business Plan. However, it may draw upon material that is embedded within each of the relevant areas that contribute towards the CVP.

5.15. Companies should seek to provide a monetised value to consumers for each proposal forming part of the CVP. Companies should set out any methodology employed in determining this monetised value, along with any underlying data used in its calculation. Ofgem will take this information into account in determining whether a proposal should receive a reward and, if so, the size of that reward.

5.16. Each proposal forming part of the CVP will be assessed individually on its own merit. Where a company is unable to propose a robust methodology for calculating a monetised value to consumers associated with a proposal, Ofgem notes that it may be unable to determine an appropriate size of reward for that proposal, which may lead to the proposal receiving no reward.

5.17. Proposals forming a part of a company's CVP should be clearly and unambiguously identified as such.

5.18. However, Ofgem considers that companies could include within their CVP proposals for:

- 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

5.19. The above are illustrations of the type of activities that might inform a CVP and companies are encouraged to think broadly about the areas within which they can show how their plan offers additional value. To be clear, this is not a tick-box exercise and the inclusion of the following will not automatically lead to a business plan reward. What we will expect to see accompanying these type of activities is evidence of the associated additional value to either 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. It is this additional value that will be taken into account in the Stage 2 assessment.

5.20. If the company receives a reward under this element of the BPI, Ofgem will consider whether it should include provision for the clawback of the reward in the event that the commitment(s) in question are not delivered. Companies should consider this in their Business Plan and, where appropriate, commit to returning any associated rewards in the event of non-delivery.

5.21. In assessing a CVP proposal, Ofgem expects to consider:

- Whether the proposal consists of something incremental to the minimum requirements.
- The extent to which the proposal includes evidence that shows how it incorporates consumer expectations/priorities and value (which may include willingness to pay).
- The extent to which the proposal has been reviewed by and received the support of the Ofgem RIIO-2 Challenge Group, companies' CEGs and UGs or, otherwise, the extent to which reasons for the lack of such support are clearly and satisfactorily explained.
- Whether the proposal includes a monetised consumer benefit and an associated monetisation methodology and the extent to which such a methodology is reasonable.
- The extent to which the monetised benefits associated with the proposal accrue to either to current consumers, future consumers and consumers in vulnerable situations.
- Where the proposal relates to a commitment to deliver something within RIIO-2, whether arrangements to address the possibility of non-delivery are set out and the extent to which such arrangements for non-delivery are appropriate and implementable.

This list is not exhaustive.

5.22. Where a CVP proposal relates to the delivery of something within the RIIO-2 period and is rewarded, Ofgem expects to determine the size of the reward by multiplying the net consumer value by the company's totex efficiency incentive rate. This is to help ensure that companies do not spend more in delivering the benefit than the value of that benefit to consumers.

5.23. It may be the case that companies include additional costs in their forecasts associated with the delivery of CVP proposals. Where this is the case, Ofgem will consider any consumer benefit that arises from the proposal net of these costs. If these costs are clearly identified within companies' forecasts, Ofgem will be able to exclude them from relevant benchmarking exercises. If such costs are included in forecasts but not clearly identified (and are therefore included in relevant benchmarking exercises), this could have an impact upon the assessed level of efficiency of the company.

5.24. Where a company includes a proposal for an uncertainty mechanism as part of its CVP, this should include an assessment of the likelihood of the mechanism being utilised in the RIIO-2 price control period.

5.25. As with Stage 1, our view on the CVP will take into consideration, together with all other relevant matters, the reports we receive from the Ofgem RIIO-2 Challenge Group and companies' CEGs and UGs.

C. Data and sources

0. General

Inflation indices

As assumed in BP

	2013	RIIO-T1 2014	2015	2016	2017	2018	2019	2020	2021	RIIO-T2 2022	2023	2024	2025	2026	Source
RPI		2.88%	1.96%	1.08%	2.14%	3.74%	3.06%	3.07%	3.07%	3.07%	3.07%	3.07%	3.07%	3.07%	SHE-T business plan
CPI							1.99%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	2.00%	SHE-T business plan
RPI Index (2012/13 = 100)	100	102.9	104.9	106.0	108.3	112.3	115.8	119.3	123.0	126.8	130.7	134.7	138.8	143.1	Calculation
RPI Index (2018/19 = 100)	86.4	88.9	90.6	91.6	93.5	97.0	100.0	103.1	106.2	109.5	112.9	116.3	119.9	123.3	Calculation
Rolling average RPI (2018/19 = 100)		88.9	89.7	90.3	91.1	92.3	93.6	95.0	96.4						

Note: Connections and NAP tabs use historical T1 benefits data to project forwards to T2+

1. Sustainability

(a) SHE-T VISTA spreadsheet

Benefit	Unit	Value
Undergrounding	km	12.5
No. of towers removed	no.	59

Goal/Target Apply modern interactive technology to inform stakeholders of possible changes to landscape and visual amenity in new project proposals

Last updated 05.11.19

Calculation steps 1. Sum of total length (km) of undergrounding for each Vista project in T2  
2. Sum of number of towers removed for each Vista project in T2.

(b) Nera WTP values

Attributes	WTP (£)
Risk of powercuts	
2 hours decrease in the hours of powercuts at a 1.5% probability	7.70
4 hours decrease in the hours of powercuts at a 1.5% probability	9.70
Every fewer day to recover from a blackout	3.58
Undergrounding Overhead Transmission Lines	
20 miles additional underground in National Parks etc.	6.87
20 miles additional underground in other areas	6.46
Improving visual amenity of Overhead Transmission Lines	
Additional visual impact work in National Parks etc.	4.14
Additional visual impact work in National Parks and other areas	4.81
Additional transmission site environment improved	
25 additional sites	8.92
45 additional sites	10.78
Investing in innovation projects	
Medium Scale Projects compared to Small Scale Projects	2.38
Large Scale Projects compared to Small Scale Projects	3.11
Supporting local communities	
Current level of community activities	8.26
Current level of community activities and additional funding to charities	8.46
Investing in EV Charging Infrastructure	
Invest before definite need	9.55
Investing in infrastructure to connect to renewable generation	
Invest before definite need	11.78

Source: NERA Analysis

Item	Metric	Source
(a) Vista	No. GB customers (m)	27.4 SHE-T
	SP WTP 20 miles undergrounding National Parks (£/cons/yr)	6.87 Nera
	SHE-T undergrounding T2 (km)	12.5 SHE-T VISTA spreadsheet
	Conversion (km to miles)	0.621 -
	SHE-T undergrounding T2 (miles)	7.77 Calc
	WTP factor	0.388 Calc
	Upper bound (SP) WTP VISTA T2 (£m/yr)	73.1 Calc
	SP upper bound adjustment	50%
	Adjusted WTP VISTA T2 (£m/yr)	36.6 Calc
	Adjusted WTP VISTA T2 (£m 5 yrs)	182.8 Calc
Undergrounding VISTA cost T2 (£m 5 yrs)	70.0 SHE-T	
(b) Biodiversity	SP WTP 25 additional sites improved (£/cons/yr)	8.92 Nera
	SHE-T additional sites improved T2 (no.)	24 SHE-T
	WTP factor	0.960 Calc
	Upper bound (SP) WTP BIOD T2 (£m/yr)	234.6 Calc
	SP upper bound adjustment	50%
	Adjusted WTP BIOD T2 (£m/yr)	117.3 Calc
	Adjusted WTP BIOD T2 (£m 5 yrs)	586.6 Calc
	Improved sites BIOD cost T2 (£m 5 yrs)	3.38 SHE-T
	Total adj WTP (£m 5 yrs)	769.3 Calc
	Total Cost (£m 5 yrs)	73.4 Calc

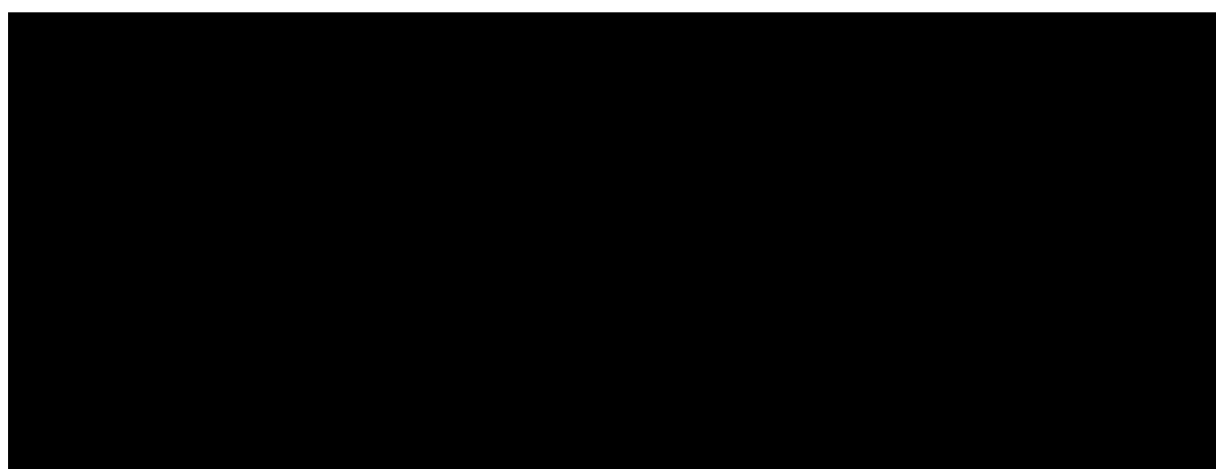
Notes:  
Towers VISTA improvements not included.  
All other sustainability impacts either modelled separately or qualitative.

2. Connections service

Source: Spreadsheet

SHE Transmission - Carbon Calculator for Connections & Outages.xlsx

21/11 version



Item	Metric	Source
Method 1 - T1 analysis (6 years)		
Carbon saved T1 (tn 6 yrs)	1,355,940	SHE-T (calc based on LHS table)
Value Carbon saved (£m 6 yrs)	88.54	SHE-T (calc based on LHS table)
Value Carbon saved (£m/yr)	14.76	Calc
Delta costs T2 (£m/yr)	0.23	SHE-T
Delta costs T2 (£m 5 yrs)	1.15	Calc
Max QoS payments T2 (£m 5 yrs)	11.75	SHE-T
Max QoS payments T2 (£m/yr)	2.35	Calc

3. Network Access Policy

Source: ESO response to SHE-T email

Constraint payment savings T1 (Lauren Logan email 1/11/19). Sloy and Dounreay-Spittal cost saving potential T1 applied to T2.

£m saving potential (6 yrs T1)	6.67	Source: S Assume midpoint of savings
£m saving potential (pa T1)	1.11	Calc
Delta Cost T2 (£m pa)	0.076	Source: SHE-T
Delta Cost T2 (£m 5 yrs)	0.380	Calc

4. Local Area Energy Partnerships

Source: SHE-T 'Strategic Wider Works (SWW) Needs Case: Orkney', UPDATE ON FURTHER ANALYSIS, OCTOBER 2018

Note: Use annuity method here but TBC if raw CPX/OPX nos are available.

Annualised to T2 based on an annuity approach (proxy)

Years	40
Discount rate WACC	3.97%
Discount rate STPR	3.50%
Blended	3.74% Calc

Table 3 Outcome of Customer Impact Assessment for 70 MW generation scenario (S70) with most conservative assumptions

£m, NPV	Annuity equivalent (£m pa)	Check
Reduced wholesale price	11.55	Calc
Avoided carbon emissions	3.50	Calc
Cost of CID subsidy	-2.82	Calc
Network costs - transmission	-14.22	Calc
Network costs - distribution	1.21	Calc
Local socio-economic impact	2.23	Calc
NET BENEFIT	1.46	Calc

The industry standard for undertaking economic appraisal of investment options is cost benefit analysis (CBA) where: (i) costs are the forecast capital and operating expenditure, and (ii) benefits are avoided network constraints. All costs and benefits are assessed on Present Value (PV) for a 40 year modelling term using a post tax real Weighted Average Cost of Capital of 3.97% and Social Time Preference Rate of 3.5%.

5. Certain view and commitment

Source: Certain view and commitment document

£265.9m outperformance in T1 due to non-efficiency. Post-sharing (50%) => £132.9m retained over 8 years. Implies £16.6m pa.

Reduces the risk of costs falling into 3 buckets of "external factors", "circumstantial factors" and "potential errors in price control". Calculate % of outperformance OIgem set in those buckets in T1 and roll forward in T2 on annualised basis.

132.90 8 years T1	Source: SHE-T (2018/19 prices)
16.61 pa T2 (before adjustments)	

6. Volume driver

Source: SHET volume driver analysis spreadsheet

5 year number for T2. Cost savings = Delta between UCA in T1 vs UCA in T2 using SHE-T likely outturn view. And % of T1 projects that would have fallen into low atypically low UCA and if that was rolled forward into T2.

9.40 T2 total (5 years)	Source: SHE-T (2018/19 prices)
1.88 pa T2 (before adjustments)	

9.375

7. Local Suppliers

Source: SSE Benefits Calculations Spreadsheet

T2 local supplier savings based on

£2,629,800,000 T1 capex	Source: SHE-T (2018/19 prices)
O4B spend during	
£14,600,000 T1 (£)	
O4B spend as a	
0.56% % of T1 spend	
£2,031,700,000 T2 capex	
Local spend during T2 -	
£11,279,497 forecast (£)	

End



1. Sustainability (b) Biodiversity

Sustainability Proposals within Sustainability Action Plan (being drafted). Build on our sector leading position in sustainability as demonstrated from our performance in the EDR in T1.

(1) CVP proposal (source: SHE-T)

Name	Description	Outputs increment		Quantification of		Notes on costs, benefits
		Minimum criteria	Beyond minimum	Costs delta (€m)?	Benefits delta (€m)?	
b. Biodiversity (Blank) Offsetting payments	SHE-T additional sites improved T2 (24)	No minimum	SHE-T additional sites improved T2 (24)		3.4	Benefits: 5 years T2. Assume SP WTP is an 586.6 upper bound

(2) Quantification (input: data sources and assumptions)

Costs delta Description	Value T1 (€m)	Value T2 (€m pa)	Benefits delta Description	Output T1 (eg. t CO2)	Value T1 (€m)	T1 v T2	
						Year adj	Index adj
b. Biodiversity (Blank) Offsetting payments			SHE-T additional sites improved T2 (24)				117.3

(3) CVP analysis (output: appraisal)

Year end (March 31st) >	RfIO-T2					Future price controls																														Checks					
	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056		2057	2058	2059	2060	2061
	d(Costs)	0.68	0.68	0.68	0.68	0.68	0.57	0.49	0.42	0.35	0.30	0.25	0.22	0.18	0.16	0.13	0.11	0.10	0.08	0.07	0.06	0.05	0.04	0.04	0.03	0.03	0.02	0.02	0.02	0.01	0.01	0.01	0.01	0.01	0.01		0.01	0.00	0.00	0.00	0.00
d(Benefits)	117.32	117.32	117.32	117.32	117.32	99.72	84.76	72.05	61.24	52.05	44.25	37.61	31.97	27.17	23.10	19.63	16.69	14.18	12.06	10.25	8.71	7.40	6.29	5.35	4.55	3.87	3.29	2.79	2.37	2.02	1.71	1.46	1.24	1.05	0.90	0.76	0.65	0.55	0.47	0.40	
<b>Total pa</b>	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	117.32	
<b>Cumulative</b>	0.68	1.35	2.03	2.70	3.38	3.95	4.44	4.86	5.21	5.51	5.77	5.98	6.17	6.32	6.46	6.57	6.67	6.75	6.82	6.88	6.93	6.97	7.01	7.04	7.06	7.08	7.10	7.12	7.13	7.14	7.15	7.16	7.17	7.18	7.18	7.19	7.19	7.19	7.20	7.20	
<b>NPV</b>	117.32	234.63	351.95	469.26	586.58	686.30	771.05	843.10	904.34	956.40	1,000.64	1,038.25	1,070.22	1,097.39	1,120.49	1,140.12	1,156.81	1,170.99	1,183.05	1,193.30	1,202.01	1,209.41	1,215.71	1,221.05	1,225.60	1,229.47	1,232.75	1,235.54	1,237.92	1,239.94	1,241.65	1,243.11	1,244.35	1,245.40	1,246.30	1,247.06	1,247.70	1,248.25	1,248.72	1,249.12	
<b>Post-sharing analysis</b>	81.5	163.0	244.5	326.0	407.5	478.8	535.7	585.8	628.3	664.5	695.2	721.4	743.6	762.4	778.5	792.1	803.7	813.6	822.0	829.1	835.1	840.3	844.6	848.4	851.5	854.2	856.5	858.4	860.1	861.5	862.7	863.7	864.5	865.3	865.9	866.4	866.9	867.3	867.6	867.9	













6. Volume driver

Our RIO-T2 Certain View includes £100 million of cost savings from targeted new technology and ways of working, and we aim to go further.

(1) CVP proposal (source: SHE-T)

Table with 6 columns: Name, Description, Minimum criteria, Beyond minimum, Costs delta (Em)?, Benefits delta (Em)?, Notes on benefits. Includes Volume driver and Offsetting payments rows.

(2) Quantification (input: data sources and assumptions)

Summary table for quantification with columns: Costs delta Description, Value T1 (Em), Value T2 (Em pa), Benefits delta Description, Output T1 (eg. 1 CO2), Value T1 (Em), T1 v T2 Year adj, Index adj, Value T2 (Em pa).

Assumptions table with columns: Years of appraisal, Discount rate (eg. 51%), Cost delta post T2 (%(incr. pa)), Benefit delta post T2 (%(incr. pa)), Sharing factor (for SHE-T1).

(3) CVP analysis (output: appraisal)

Main appraisal table with columns: Year end (March 31st) from 2022 to 2061, RIO-T2, Future price controls, and various cost/benefit metrics. Includes Total pa, Cumulative, NPV, and Post-sharing analysis sections.

Checks - 20 20 20 16