

Gas System
Operator

NTSCMF

03 September 2019

Indicative RIIO-T2 tariff impacts

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Purpose of session

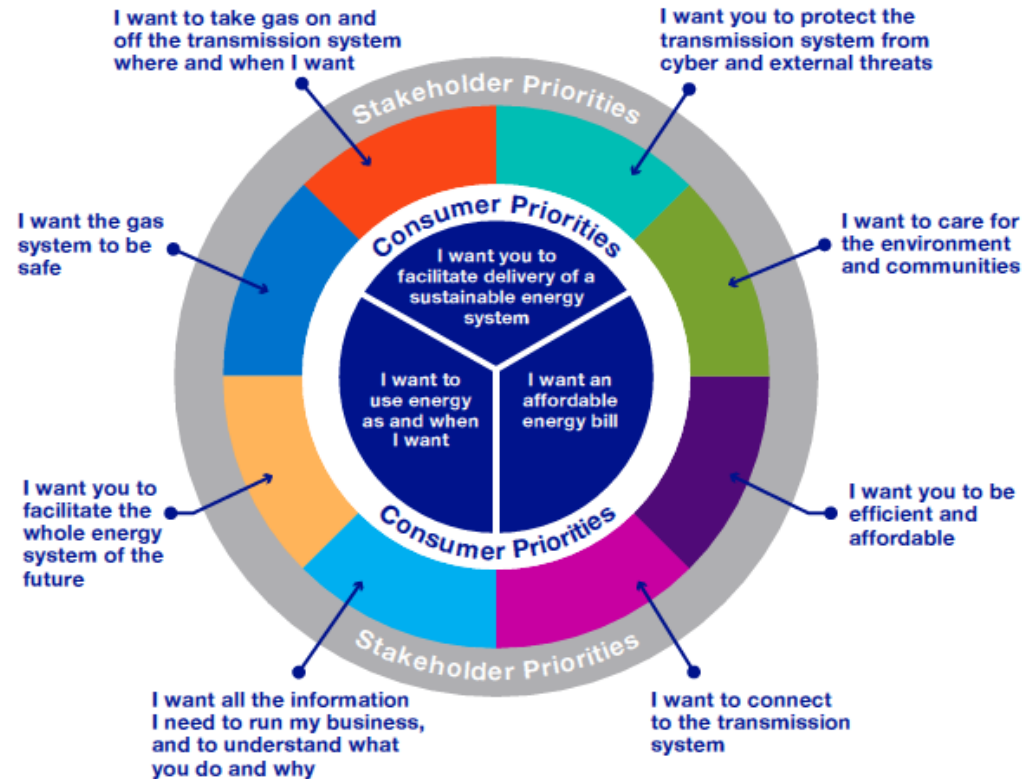
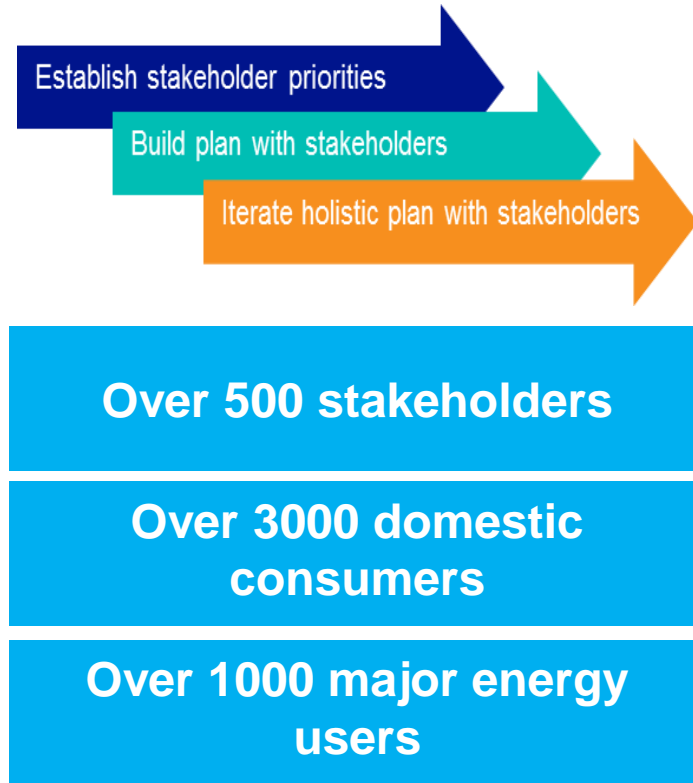
To give NTSCMF in indication of how tariffs may change in RII02, based on the July draft business plan

To listen to & capture any feedback and questions

Context

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We have used our largest-ever engagement exercise to create a stakeholder-led draft business plan



We have also received robust challenge from our independent stakeholder user group

Our plan will continue to provide safe, reliable, resilient and affordable energy for current and future consumers

Maintain a safe and resilient network



- Deliver the network capability our stakeholders need now and into the future, keeping options open to move to Net Zero carbon by 2050
- Invest in our ageing infrastructure to maintain our current level of reliability and availability
- Maintain our world class level of safety, pursuing our zero harm goal
- Deliver the cyber resilience and physical security hardening mandated by Government

Deliver an environmentally sustainable network



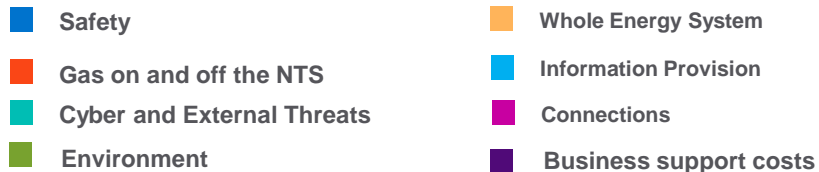
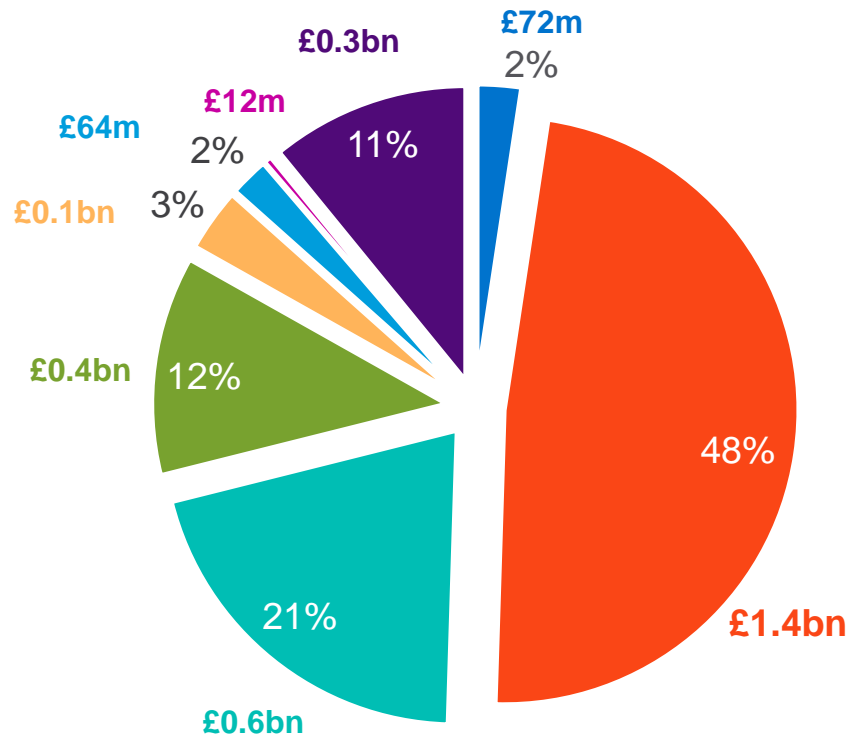
- Deliver the most efficient solution to ensure our compressor fleet complies with emissions legislation – limiting new compressor installations to 2 in RIIO2 and 5 in RIIO3, exploring decommissioning or derogation for the remaining 21
- Play a leading role in the whole energy and decarbonisation debate
- Make clear our climate change commitments, including activities to reduce emissions from other assets and activities

Meet the needs of consumers and network users



- Be more responsive to the needs of connection customers
- Drive efficiencies across our activities
- Enable competition and foster innovation by sharing our data openly
- Drive affordability by facilitating the effective functioning of the gas market

A summary of our spend to meet our stakeholder requirements



Key cost drivers

- Managing an ageing network with many assets at the end of their design life, informed by new NARMs methodology agreed with Ofgem
- Protecting the transmission system from cyber security threats in line with new legislation
- Timely delivery of emissions legislation compliance

We have challenged ourselves to drive efficiencies across our activities

Where are we in the timeline?

Stakeholder segments covered in stakeholder engagement plan:

NB: All 4 distribution networks are included however their feedback will be summarised and input as a whole to ensure the equitable nature of the sample

Core Energy Industry	Not for Profit / NGO
Non industry infrastructure	Political and Regulatory
Research and Development	Consumer communities
Commentators	

Timescales:

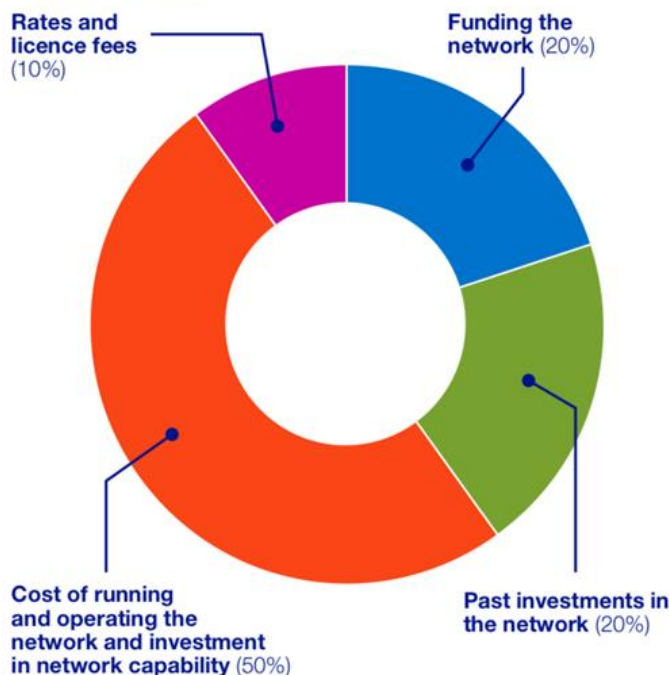


Allowed revenue and tariffs

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Constituent parts of our allowed revenue

How our £10 per year portion of the domestic bill breaks down



Funding the network: upfront spend comes with an associated cost of raising funds, this is similar to the interest paid on a loan.

Past investments in the network: the cost of past investments in the gas networks is spread so consumers pay over the life of the assets. This portion relates to cost in prior regulatory periods.

Cost of running and operating the network and investment in network capability: the cost of work to deliver network capability within the current regulatory period is spread so consumers pay over the life of the assets. This also covers the day-to-day costs of running and operating a safe and reliable network.

Rates and licence fees: the obligatory charges that we have to pay in order to operate.

Customer bill

Potential changes to tariffs due to RIIO-2

National Grid's Transportation Charges recover Transmission Owner (TO) Revenue and System Operator (SO) Allowed Revenue. It is collected via Transportation charges, paid by all Users of the National Transportation System (NTS).

The methodology for setting Transportation charges is complex. Users can avail of different charging products with varying prices. Specific charges will vary based on Users access and use of the NTS and any changes to the charging framework.

We therefore use simplifying assumptions to calculate the impact of our RIIO-2 business plan on customers. We split this into two categories, Entry and Exit, and provide an average view, all in 18/19 prices.

Our Customers want visibility of revenue forecasts including potential tariff implications. We provide mechanisms to assist Customers assessing their bill impacts via NTS Charging Methodology Forums and published tools and pricing information.

Our forecast revenues for our July draft business plan submission based on our proposed financial framework are:

Year	RIIO-1 average	2021/22	2022/23	2023/24	2024/25	2025/26
Total Revenue (£bn)	1.05	1.03	1.00	1.02	1.01	1.04

Revenues and therefore charges exclude the impact of inflation. All monetary values are quoted in 18-19 prices.

Entry Charges	To estimate average tariff impacts, we use: <ul style="list-style-type: none"> RIIO-1 average revenue in 18/19 prices RIIO-2 forecast revenue in 18/19 prices 	Average Entry Charges – approximate impacts	Change over RIIO-2 (21/22 to 25/26)	Change from average over RIIO-1 to 25/26
		Revenue only impacts	1%	-1%
Exit Charges	<ul style="list-style-type: none"> Revenue only impacts keeps 2020/21 forecast supply / demand for each RIIO-1 year and each RIIO-2 year. 18/19 prices. 	Average Exit Charges – approximate impacts	Change over RIIO-2 (21/22 to 25/26)	Change from average over RIIO-1 to 25/26
		Revenue only impacts	1%	-1%

RIIO-T2: Tariffs – Assumptions (1/2)

- **General Assumptions**

- Revenues used based on Business Plan proposals for Transmission only
- Uses revenue values that are those before any potential adjustments are applied (e.g. Revenue adjustments such as MOD or equivalent, incentives, etc)
- Transmission Services Revenues are applied as equivalent to a Tariff (Gas) Year (i.e. using a regulatory year and applying this revenue to a tariff year) to illustrate the potential change over the T2 period
- Models Transmission Services Entry and Exit Capacity Reference / Reserve prices only
- Shows specific tariff values for firm capacity (i.e. not interruptible tariffs)
- Tariffs are in nominal terms (i.e. uses a forecast of 2021/22 revenues inclusive of forecast inflation to calculate 2021/22 tariffs)

RIO-T2: Revenues and Tariffs – Assumptions (2/2)

- **Details of Capacity Calculation:**

- 0678 (and alternatives) are currently with Ofgem for decision
- We have modelled here using 0678 CWD Transmission Services Reference Price Methodology only, this in no way assumes the outcome from the 0678 governance with Ofgem including any potential effective date;
- Uses Forecast Contracted Capacity (FCC) in line with the FCC methodology contained in 0678.
- Tariffs are “fully adjusted” to cater for storage discount (50%) interruptible (10%).
- Existing Contracts treated as per 0678 (i.e. have their capacity price as per their allocation. Revenue and capacity values are netted off in the calculation)
- Does assume a base starting from an updated proposal away from the current methodology and for simplicity shows using 0678.
- Capacity reference/reserve prices are not comparable to those 0678 Modification pages. Using the revenues as outlined ensures a consistent approach so that the T1 and T2 numbers presented are on the same terms and can be readily compared.

Indicative Capacity Reserve Prices – Entry and Exit



Indicative Entry Capacity Prices under T2 base revenues

Entry Point	Entry Point Type	T1 - 2020/21 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2021/22 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2022/23 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2023/24 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2024/25 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2025/26 - Firm Capacity Reserve Prices (p/kWh/d)
Avonmouth	STORAGE SITE	0.0213	0.0184	0.0194	0.0194	0.0185	0.0191
Bacton IP	INTERCONNECTION POINT	0.0343	0.0296	0.0311	0.0310	0.0296	0.0305
Bacton UKCS	BEACH TERMINAL	0.0343	0.0296	0.0311	0.0310	0.0296	0.0305
Burton Point	ONSHORE FIELD	0.0390	0.0338	0.0356	0.0355	0.0339	0.0350
Barrow	BEACH TERMINAL	0.0420	0.0362	0.0378	0.0376	0.0359	0.0371
Barton Stacey	STORAGE SITE	0.0208	0.0180	0.0189	0.0189	0.0181	0.0186
Canonbie	ONSHORE FIELD	0.0421	0.0363	0.0379	0.0378	0.0361	0.0372
Cheshire	STORAGE SITE	0.0171	0.0148	0.0156	0.0155	0.0149	0.0153
Caythorpe	STORAGE SITE	0.0159	0.0137	0.0142	0.0142	0.0135	0.0139
Dynevor Arms	STORAGE SITE	0.0224	0.0194	0.0204	0.0204	0.0195	0.0201
Easington	BEACH TERMINAL	0.0315	0.0271	0.0282	0.0280	0.0268	0.0276
Fleetwood	STORAGE SITE	0.0184	0.0159	0.0166	0.0165	0.0158	0.0163
Glenmavis	STORAGE SITE	0.0278	0.0240	0.0252	0.0251	0.0240	0.0247
Garton	STORAGE SITE	0.0151	0.0130	0.0135	0.0134	0.0128	0.0132
Hole House Farm	STORAGE SITE	0.0169	0.0146	0.0154	0.0154	0.0147	0.0151
Hatfield Moor (onshore)	ONSHORE FIELD	0.0291	0.0250	0.0259	0.0257	0.0246	0.0253
Hornsea	STORAGE SITE	0.0156	0.0134	0.0139	0.0138	0.0132	0.0136
Hatfield Moor (storage)	STORAGE SITE	0.0145	0.0125	0.0129	0.0129	0.0123	0.0127
Isle of Grain	LNG IMPORTATION TERMINAL	0.0409	0.0354	0.0373	0.0373	0.0356	0.0367
Milford Haven	LNG IMPORTATION TERMINAL	0.0606	0.0524	0.0552	0.0551	0.0527	0.0543
Partington	STORAGE SITE	0.0176	0.0152	0.0160	0.0159	0.0152	0.0157
Moffat (Irish Interconnector)	INTERCONNECTION POINT	0.0459	0.0396	0.0415	0.0413	0.0395	0.0407
Murrow	BIOMETHANE PLANT	0.0279	0.0240	0.0252	0.0251	0.0240	0.0247
St Fergus	BEACH TERMINAL	0.0772	0.0668	0.0700	0.0698	0.0667	0.0687
Teesside	BEACH TERMINAL	0.0383	0.0330	0.0344	0.0342	0.0327	0.0337
Theddlethorpe	BEACH TERMINAL	0.0307	0.0264	0.0275	0.0274	0.0262	0.0270
Wytch Farm	ONSHORE FIELD	0.0454	0.0394	0.0415	0.0415	0.0396	0.0408

Estimated Entry Capacity Prices under T2 base revenues (Beach and LNG only)

Entry Point	Entry Point Type	T1 - 2020/21 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2021/22 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2022/23 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2023/24 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2024/25 - Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2025/26 - Firm Capacity Reserve Prices (p/kWh/d)
Bacton UKCS	BEACH TERMINAL	0.0343	0.0296	0.0311	0.0310	0.0296	0.0305
Barrow	BEACH TERMINAL	0.0420	0.0362	0.0378	0.0376	0.0359	0.0371
Easington	BEACH TERMINAL	0.0315	0.0271	0.0282	0.0280	0.0268	0.0276
Isle of Grain	LNG IMPORTATION TERMINAL	0.0409	0.0354	0.0373	0.0373	0.0356	0.0367
Milford Haven	LNG IMPORTATION TERMINAL	0.0606	0.0524	0.0552	0.0551	0.0527	0.0543
St Fergus	BEACH TERMINAL	0.0772	0.0668	0.0700	0.0698	0.0667	0.0687
Teesside	BEACH TERMINAL	0.0383	0.0330	0.0344	0.0342	0.0327	0.0337
Theddlethorpe	BEACH TERMINAL	0.0307	0.0264	0.0275	0.0274	0.0262	0.0270

Indicative Percentage Difference in Entry charges (flat average)

	Change from 2020/21 to 2021/22	Change from 2021/22 to 2022/23	Change from 2022/23 to 2023/24	Change from 2023/24 to 2024/25	Change from 2024/25 to 2025/26
Percentage Difference	-14%	+5%	0%	-4%	+3%

- The percentages above are relative the preceding year;
- They include the treatment of Existing Contracts, which will have both a revenue and volume impact when calculating the tariffs;
- They represent a year to year change only;
- The first of the years above go from the last year of T1 into the first year of T2;
- These are “flat” averages and will vary across individual Entry points although not significantly

Indicative Average Exit Point Type Capacity Prices under T2 base revenues

	T1 - 2020/21 - Average Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2021/22 - Average Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2022/23 - Average Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2023/24 - Average Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2024/25 - Average Firm Capacity Reserve Prices (p/kWh/d)	T2 - 2025/26 - Average Firm Capacity Reserve Prices (p/kWh/d)
GDN (EA)	0.0172	0.0158	0.0171	0.0184	0.0189	0.0201
GDN (EM)	0.0152	0.0139	0.0151	0.0162	0.0167	0.0177
GDN (NE)	0.0155	0.0141	0.0152	0.0163	0.0168	0.0178
GDN (NO)	0.0204	0.0186	0.0200	0.0215	0.0221	0.0235
GDN (NT)	0.0198	0.0183	0.0198	0.0212	0.0219	0.0232
GDN (NW)	0.0192	0.0176	0.0190	0.0204	0.0211	0.0223
GDN (SC)	0.0262	0.0239	0.0257	0.0276	0.0284	0.0301
GDN (SE)	0.0217	0.0200	0.0216	0.0232	0.0240	0.0254
GDN (SO)	0.0228	0.0211	0.0230	0.0247	0.0255	0.0270
GDN (SW)	0.0237	0.0220	0.0241	0.0259	0.0266	0.0282
GDN (WM)	0.0174	0.0160	0.0174	0.0187	0.0193	0.0204
GDN (WN)	0.0196	0.0180	0.0195	0.0210	0.0216	0.0229
GDN (WS)	0.0230	0.0215	0.0236	0.0254	0.0262	0.0277
INDUSTRIAL	0.0218	0.0200	0.0216	0.0232	0.0239	0.0253
INTERCONNECTOR	0.0186	0.0170	0.0183	0.0196	0.0202	0.0214
POWER STATION	0.0189	0.0174	0.0188	0.0202	0.0208	0.0221
STORAGE SITE	0.0093	0.0085	0.0092	0.0099	0.0102	0.0108

Indicative Percentage Difference in Exit charges (flat average)

	Change from 2020/21 to 2021/22	Change from 2021/22 to 2022/23	Change from 2022/23 to 2023/24	Change from 2023/24 to 2024/25	Change from 2024/25 to 2025/26
Percentage Difference	-8	+8	+7	+3	+6

- The percentages above are relative the preceding year;
- They represent a year to year change only;
- The first of the years above go from the last year of T1 into the first year of T2;
- These are “flat” averages and will vary across individual Exit points although not significantly

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