Gas Transmission

Forecasted Contracted Capacity Workshop

04 February 2021



nationalgrid

Agenda

- National Grid involvement
- Structure for the weekly sessions
- Reflections from previous session
- Updates from previous session
- Looking ahead and key deliverables

Gas Transmission

Forecasted Contracted Capacity Workshop

04 February 2021



nationalgrid

Who's involved from National Grid

Colin Williams

Commercial Codes Change Manager

Laura Johnson

Code Change Lead

Dan Hisgett

Code Change Lead

Dave Bayliss

Senior Revenue Analyst

Bradley Charles

Senior Capacity and Strategy Development Analyst

Kieran McGoldrick

Revenue & Incentive Analyst

General Questions

General Regulatory Change Queries
box.gsoconsulations@nationalgrid.com

General Charging Queries
box.NTSGasCharges@nationalgrid.com

General Capacity Queries

box.capacityauctions@nationalgrid.com

Structure for the weekly sessions

- So we do not have an unknown set of material until each workshop, useful to propose how we could run and organise these sessions.
- After each workshop, to those that attend, NG will share a short summary of the main topics discussed in that week and what we believe is achievable for the following workshop where the actions fall on National Grid.
- For any input between meetings from Stakeholders, any contributions or views can be shared direct to National Grid (confidentially if appropriate)
- We will keep an agenda item specifically on the methodology progress every other workshop to keep on track for its updating
- Throughout we welcome any input to maintain progress in these workshops. If there are any questions in between workshops share with National Grid ahead of the workshop to support us keeping to an agenda

Discussions and reflections from previous session

High level overview of what was discussed:

- What amount of discretion is permissible needs to be thought about and agreed
- How the DN Licence feeds into the calculations and will this change as part of RIIO T2 and impacts particularly on the first year. Is there
 is any cross over to GDNs capacity bookings and the FCC, as they plan for 21/22 and beyond.
- How the monthly phasing of FCC is applied and that this is applied based on whole system and not at a Site or Site type level, this could
 give some differences in values over the different months
- Existing Contracts these values are high over this gas year but will be tailing off in future years which could change behaviours
- Some Exit Capacity has user commitment so that could be why some sites or types of sites are booking more than they flow
- Power market could have an influence on bookings which could change on a daily basis and Users could be getting used to trying to balance the risk of overbooking with not being able to flow
- When the Revenue Recovery Charge comes in from 01 Feb 2021 this will have an impact on the behaviour of Users
- Will only have data for Winter period when setting the new FCC and prices applicable from 01 Oct 2021, need to take this into account and look at how would forecast the Summer even though no data under new regime.
- Shape and bookings needs to be looked at over the year as some sites will have different usage and booking patterns than others
- Other countries will have different ways of forecasting, is any information available that we could consider
- Welcome views in Workgroup's but also confidential to NG if more appropriate on specific inputs

Actions from previous session

| Action Number | Detail | Latest update | Proposed delivery | Complete |
|------------------|---|-------------------------------------|-------------------|----------|
| FCC 1 | Phasing of the FCC calculation and what was done | | 04/02/21 | Yes |
| FCC 2 | Exit for DC split this down to PG and IND | | 04/02/21 | Yes |
| FCC 3 | For Entry and Exit what values are LT/Enduring and what ST on capacity booked | | 04/02/21 | Yes |
| FCC 4 | Exit Capacity which has user commitment versus what doesn't have user commitment | | 04/02/21 | Yes |
| FCC 5 | Previous flows seen over 5 years – how does this align to FCC | | 11/02/21 | No |
| FCC 6 | What value was used for the FCC at different sites | | 04/02/21 | Yes |
| FCC 7 | Of the 4 values which were inputs into the FCC what is closest to the actual bookings have seen | | 04/02/21 | Yes |
| FCC 8 | If took an average value of the inputs into FCC what would FCC have been | | 04/02/21 | Yes |
| FCC 9 | What is used in other markets? | | 18/02/21 | No |
| FCC 10 | Contact GDN's and see if there is any cross over to their capacity bookings planned for 21/22 | Invite for meeting sent to industry | 18/02/21 | No |

Action FCC 01 - Monthly Profiling Of FCC

- FCC calculated at an annual level
 - In order to be able to compare capacity bookings vs forecast for a YTD / Monthly position, the FCC needs to be profiled across the year.
- Done by calculating a forecast capacity profile, based on a combination of:
 - Total capacity allocated by month across a previous year
 - FCC data by broken down by month, where available
 - Forecast flow data

This phasing then applied to the annual FCC values to provide a winter/summer monthly weighting to forecast expected capacity volumes

| | Oct | Nov | Dec | Jan | Feb | Mar | Apr | May | Jun | Jul | Aug | Sep |
|-------|-------|-------|-------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
| Entry | 8.93% | 8.90% | 9.30% | 10.38% | 9.26% | 9.99% | 7.48% | 7.23% | 7.16% | 7.25% | 7.12% | 6.99% |
| Exit | 8.73% | 8.39% | 8.67% | 8.67% | 8.19% | 8.77% | 7.80% | 8.23% | 8.02% | 8.25% | 8.24% | 8.06% |

Action 2 - Entry FCC by Entry Point (no change from last meeting)

| | | Oc | t 20 | | | Nov 20 | | | Dec 20 | | | |
|---------------------|---------------------------------------|---|---|--|---|--|------------------------------------|--|---|--|------------------------------|--|
| | Capacity Utilisatio n (Booked v Flow) | Proportio n of FCC Forecast Booked | Proporti on of FCC that is EC | Proportion of Capacity Booked that is EC | Capacity Utilisation (Booked v Flow) | Proportion of FCC Forecast Booked | Proportion of FCC that is EC | Proportion of Capacity Booked that is EC | Capacity Utilisation (Booked v Flow) | Proportion of FCC Forecast Booked | Proportion of FCC that is EC | Proportion of Capacity Booked that is EC |
| STORAGE | 3% | 90% | 89% | 98% | 6% | 88% | 86% | 98% | 7% | 87% | 85% | 98% |
| INTERCONNE CTOR | 80% | 68% | 57% | 85% | 72% | 75% | 56% | 74% | 95% | 121% | 55% | 46% |
| BEACH TERMINAL | 87% | 85% | 56% | 65% | 88% | 83% | 54% | 66% | 92% | 88% | 54% | 61% |
| ONSHORE FIELD | 66% | 53% | 53% | 100% | 53% | 52% | 52% | 100% | 56% | 51% | 51% | 100% |
| BIO METHANE PLAN | 27% | 95% | 0% | 0% | 28% | 92% | 0% | 0% | 20% | 91% | 0% | 0% |
| LNG | 17% | 119% | 119% | 100% | 31% | 117% | 115% | 99% | 40% | 114% | 114% | 100% |
| TOTAL | 45% | 94% | 79% | 79% | 50% | 92% | 77% | 84% | 57% | 95% | 76% | 80% |

Action FCC 2 - Exit FCC by Entry Point — DC by PG & IND

| | Oct | t 20 | Nov | / 20 | Dec | 20 |
|--------------------|--|-----------------------------------|--|-----------------------------------|--|-----------------------------------|
| | Capacity Utilisation (Booked v Flow) | Proportion of FCC Forecast Booked | Capacity Utilisation (Booked v Flow) | Proportion of FCC Forecast Booked | Capacity Utilisation (Booked v Flow) | Proportion of FCC Forecast Booked |
| DC – PG | 61% | 70% | 64% | 71% | 66% | 75% |
| DC – IND | 80% | 103% | 72% | 71% | 74% | 73% |
| GDN | 35% | 96% | 44% | 97% | 55% | 98% |
| INTERCONNEC TOR | 78% | 44% | 84% | 47% | 91% | 49% |
| STORAGE | 51% | 62% | 39% | 45% | 31% | 43% |
| TOTAL | 43% | 86% | 49% | 84% | 58% | 85% |

Action FCC 3 - Long Term and Short Term Bookings - Entry

For the period Oct 2020 – Dec 2020 looked at the percentage of capacity which was booked Long Term and Short Term for Entry Site Types.

| | Oct 202 | 20 - Dec 2020 |
|---------------------------|---------|--|
| Entry Site Type | - | Short Term percentage of total capacity booked |
| BEACHTERMINAL | 65% | 35% |
| BIOMETHANEPLANT | 100% | 0% |
| INTERCONNECTION POINT | 64% | 36% |
| LNG IMPORTATION TERMINAL | 99% | 1% |
| ONSHORE FIELD | 97% | 3% |
| STORAGE SITE STORAGE SITE | 100% | 0% |
| Total | 83% | 17% |

Action FCC 3 - Long Term and Short Term Bookings - Exit

For the period Oct 2020 – Dec 2020 looked at the percentage of capacity which was booked Long Term and Short Term for Exit Site Types.

| | Oct 202 | 0 - Dec 2020 |
|----------------|-------------------------------|--------------------------|
| | Long Term percentage of total | Short Term percentage of |
| Exit Site Type | capacity booked | total capacity booked |
| DC - PS | 50% | 50% |
| DC - IND | 79% | 21% |
| GDN | 100% | 0% |
| | | |
| INTERCONNECTOR | 93% | 7% |
| STORAGE SITE | 56% | 44% |
| Total | 89% | 11% |

Action FCC 4 - User Commitment - Exit

For the months the current user commitments:

| Month | User Committed Amount start date (kWh/d) | Enduring Booked Capacity (kWh/d) | Percentage of Enduring Booked Capacity which is User Committed |
|--------|--|-------------------------------------|--|
| Oct-21 | 610,574,032 | 4,727,165,491 | 13% |
| Oct-22 | 242,645,203 | 4,710,202,465 | 5% |
| Oct-23 | 222,172,967 | 4,711,269,897 | 5% |
| Oct-24 | 263,154,213 | 4,753,354,130 | 6% |

Points to Note:

- The start date of the commitment is when the increase starts and can last up to a max of 4 years
- Oct 21 booked capacity is still subject to change as the July window this year will allow users to decrease with effective from 1st Oct 21
- In certain circumstances, user commitment can be paid of early than 4 years which is depending on the price at the time of placing the increase and the actual price when the increase starts.

Action FCC 6 - Entry - Metric used to Set FCC

| ENTRY | Metric Used | | | | | | | | |
|----------------|----------------------------|----------------------------|-----------------------|----------------------|-------|--|--|--|--|
| | Entry Sold (Historical) | Entry Flow (Historical) | Entry Flow (Forecast) | Existing Contract | PARCA | | | | |
| STORAGE | 75% | | | 25% | | | | | |
| INTERCONNECTOR | 100% | | | | | | | | |
| BEACH TERMINAL | 66% | | 33% | | | | | | |
| ONSHORE FIELD | 100% | | | | | | | | |
| BIOMETHANE | | | | | | | | | |
| LNG | 50% | | | 50% | | | | | |

Action FCC 6 - Exit - Metric used to Set FCC

| EXIT | | Metric Used | | | | | | | | | | |
|-------------------------|------------------------|------------------------|----------------------|-------|-----------------|--|--|--|--|--|--|--|
| | Exit Sold (Historical) | Exit Flow (Historical) | Exit Flow (Forecast) | PARCA | GDN Bookings | | | | | | | |
| DC – PG | 60% | 33% | 3% | 5% | | | | | | | | |
| DC – IND (*9% other) | 65% | 13% | 13% | | | | | | | | | |
| GDN | | | | | 100% | | | | | | | |
| INTERCONNECTOR | 66% | 33% | | | | | | | | | | |
| STORAGE | 55% | 45% | | | | | | | | | | |

Action FCC 7 - Entry - Comparison of all Metrics - Oct - Dec 2020 Actuals

| | Entr | Entry Sold (Historical) | | | Flow (Historical) | | Entry Flow (Forecast) | | | Existing Contract | | |
|------------------------|-----------------|-------------------------|------|-----------------|-----------------------|------|-----------------------|-----------------------|------|-------------------|-----------------------|------|
| | Forecast | Variance to Actual | % | Forecast | Variance to Actual | % | Forecast | Variance to Actual | % | Forecast | Variance to Actual | % |
| STORAGE | 133,266,456,328 | 1,810,157,907 | -1% | 9,639,331,653 | -121,816,966,768 | 93% | 950,826,317 | -130,505,472,104 | 99% | 143,093,281,905 | 11,636,983,484 | -9% |
| INTERCONN ECTOR | 17,692,574,294 | 2,054,071,370 | -13% | 7,055,308,082 | -8,583,194,842 | 55% | 16,711,780,579 | 1,073,277,655 | -7% | 9,128,450,226 | -6,510,052,698 | 42% |
| BEACH TERMINAL | 187,938,941,802 | -36,088,261,124 | 16% | 189,912,100,752 | -34,115,102,174 | 15% | 184,977,433,802 | -39,049,769,124 | 17% | 100,734,033,445 | - 123,293,169,481 | 55% |
| ONSHORE FIELD | 1,479,470,420 | 709,025,804 | -92% | 1,212,644,963 | 442,200,347 | -57% | 0 | -770,444,616 | 100% | 706,677,663 | -63,766,953 | 8% |
| BIO METHANE PLAN | 0 | -46,000,000 | 100% | 0 | -46,000,000 | 100% | 0 | -46,000,000 | 100% | 0 | -46,000,000 | 100% |
| LNG | 110,678,287,463 | -38,611,676,537 | 26% | 41,146,016,644 | -108,143,947,356 | 72% | 19,888,613,616 | -129,401,350,384 | 87% | 128,025,991,631 | -21,263,972,369 | 14% |
| TOTAL | 451,055,730,306 | -70,172,682,581 | 13% | 248,965,402,094 | -272,263,010,793 | 52% | 222,528,654,314 | -298,699,758,573 | 57% | 381,688,434,871 | - 139,539,978,016 | 27% |

Action FCC 7 - Exit - Comparison of all Metrics Oct - Dec 2020 Actuals

| | Exit Sold (Historical) | | | Exit F | Flow (Historical) | | Exit Flow (Forecast) | | | | PARCA | | |
|--------------------|------------------------|--------------------------|-------|-----------------|-----------------------|------|----------------------|-----------------------|------|---------------|-----------------------|------|--|
| | Forecast | Variance to Actual | % | Forecast | Variance to Actual | % | Forecast | Variance to Actual | % | Forecast | Variance to Actual | % | |
| DC – PG | 80,623,926,707 | -333,022,676 | 0% | 56,155,054,519 | -24,801,894,864 | 31% | 27,691,350,925 | -53,265,598,458 | 66% | 9,578,034,353 | -71,378,915,030 | 88% | |
| DC – IND | 18,559,341,540 | 2,078,958,099 | -13% | 10,295,675,635 | -6,184,707,806 | 38% | 6,683,627,349 | -9,796,756,092 | 59% | 0 | -16,480,383,441 | 100% | |
| GDN | 0 | - 382,305,276,7 28 | 100% | 0 | - 382,305,276,728 | 100% | 0 | - 382,305,276,728 | 100% | 0 | -382,305,276,728 | 100% | |
| INTERCO NNECTOR | 39,343,558,890 | 21,115,691,24 | -116% | 24,103,438,582 | 5,875,570,939 | -32% | 13,507,733,975 | -4,720,133,668 | 26% | 0 | -18,227,867,643 | 100% | |
| STORAGE | 38,244,931,093 | 15,676,388,30 | -69% | 10,513,218,395 | -12,055,324,396 | 53% | 0 | -22,568,542,791 | 100% | 0 | -22,568,542,791 | 100% | |
| TOTAL | 176,771,758,230 | | -28% | 101,067,387,131 | | 27% | 47,882,712,248 | | 65% | 9,578,034,353 | | 93% | |

Action FCC 8 - Entry – Average of all available FCC Metrics

| | | YTD (Oc | ct – Dec) | |
|---------------------|-----------------|-----------------|-------------------------------|------|
| | Av FCC (YTD) | Actual (YTD) | Variance (AV FCC – Actual) | % |
| STORAGE | 143,095,392,641 | 131,456,298,421 | 11,639,094,220 | 8% |
| INTERCONNECTO R | 12,647,028,295 | 15,638,502,924 | -2,991,474,629 | -24% |
| BEACH TERMINAL | 167,021,321,142 | 224,027,202,926 | -57,005,881,784 | -34% |
| ONSHORE FIELD | 1,132,931,015 | 770,444,616 | 362,486,399 | 32% |
| BIO METHANE PLAN | 0 | 46,000,000 | 46,000,000 | |
| LNG | 128,025,991,631 | 149,289,964,000 | -21,263,972,369 | -17% |
| TOTAL | 451,922,664,724 | 521,228,412,887 | -69,305,748,163 | -15% |

Greater taken of Average FCC calculated or Existing Contract Value National Grid

Action FCC 8 - Exit – Average of all Available Metrics

| | YTD (Oct – Dec) | | | |
|----------|-----------------|-----------------|----------------------------------|------|
| | Av FCC (YTD) | Actual (YTD) | Variance (AV FCC – Actual) | % |
| DC – PG | 64,646,221,670 | 80,956,949,383 | -16,310,727,713 | -25% |
| DC – IND | 12,564,419,860 | 16,480,383,441 | -3,915,963,581 | -31% |
| GDN | 386,999,794,601 | 382,305,276,728 | 4,694,517,873 | 1% |
| INT | 30,487,168,938 | 18,227,867,643 | 12,259,301,295 | 40% |
| STORAGE | 26,489,825,042 | 22,568,542,791 | 3,921,282,251 | 15% |
| TOTAL | 521,187,430,109 | 520,539,019,986 | 648,410,123 | 0% |

Questions / AOB



nationalgrid