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ACER Report on the implementation of the Balancing Network Code

SECOND EDITION

Volume II

16 November 2017

ACER - Agency for the Cooperation of Energy Regulators
Trg Republike 3, 1000 Ljubljana, Slovenia

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Volume II: Balancing zone assessments¹

1.1 Balancing zones that need to improve fundamental implementation elements

1.1.1. Balancing zones without a Balancing Platform

BG - Bulgaria

Key elements	Coding	Explanation/discussion
Implementation date	interim	<p>During 2017, a couple of new pieces of legislation have been published (the National Gas Market Balancing Rules and Daily Imbalance Charge Calculation Methodology):</p> <p>https://www.bulgartransgaz.bg/en/pages/disbalance-tax-67.html</p> <p>Based on the <i>Country Visit</i>² in April 2017, the Bulgarian TSO and NRA proposed that effective implementation of the BAL NC takes place on 1 October 2017.</p> <p>Expected delivery dates may be at risk of delay.</p>
Trade notification enabled	No	<p>The Commercial Dispatching Platform (CDP), which should take up the functions of a virtual trading point (VTP), is operational (testing phase until 1 October 2017):</p> <p>https://app.navitasoft.com/tso-ip</p> <p>The TSO organised a workshop in May 2017 to explain to users how the CDP's software operates. The TSO will try to stimulate usage of the platform.</p> <p>From 1 October 2017 title transfer will have to take place via the VTP.</p>
Trade notifications processed within x mins	120	Based on the ENTSOG survey.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	No	The renominations are enabled at cross-border and domestic points. However, at all IPs, renominations are restricted to +/- 3% changes of within-day volumes. The rule does not satisfy the requirements of art 17 of the Code.
Info requirements - system status	Envisaged	<p>The TSO provides opening linepack values and one end-of-day forecast:</p> <p>https://www.bulgartransgaz.bg/en/pages/line-pack-83.html</p>

¹ http://www.acer.europa.eu/en/Gas/Framework%20guidelines_and_network%20codes/Documents/Annex%20II-IV_2016_11_07_for_publication.pdf

² The European Commission (EC) organised in April 2017 a workshop in Bulgaria to focus on the missing elements in the implementation of the network codes. The Agency and ENTSOG participated to the workshop to share experiences and best practices. At workshop, the Bulgarian NRA, TSO and main stakeholder presented the current implementation state and related challenges. The TSO and NRA agreed with a work plan aimed at ensuring better implementation in the coming months.

The EC organised similar Country Visits in Romania and Greece. This Report makes reference to them.

		<p>(No hourly forecasts are foreseen for the end-of-the day linepack)</p> <p>Network imbalance data are not publicly available.</p>
Info requirements - TSO balancing actions	Envisaged	<p>Information about balancing actions' quantities and costs is not publicly available:</p> <p>https://www.bulgartransgaz.bg/en/pages/balancing-services-81.html</p> <p>https://www.bulgartransgaz.bg/en/pages/information-platform-17.html</p> <p>The legislation foresees the publication of such data as of 1 May 2017. Aggregated ex-post data will be provided at the end of Q1 2018. This delayed publication is not providing the market with enough transparency.</p>
Info requirements - network user portfolio	Yes	<p>Variant 1 option has been selected. Information on DM and NDM offtakes is apportioned.</p> <p>The legislation foresees the access to such data as of 1 May 2017. Based on the information from the NRA, the model is available.</p>
Trading platform available and used by TSO	No	<p>Not foreseen at the moment.</p> <p>Only the CDP is foreseen, which could become an elementary electronic platform (bulletin board) to facilitate market trading activity. Such a solution should offer low transaction costs.</p>
STSPs defined and available on Trading Platform	No	<p>The DA and WD products will be established by 1 October 2017.</p> <p>The title transfer, after the testing phase, shall provide for a real gas transaction with financial implications.</p>
TSO uses Trading Platform as first gas source	No	<p>There are no plans to develop a Trading Platform in the period to 2018.</p>
TSO uses title product as primary tool	No	<p>The TSO's Interim Measure Report recognises the potential to use the short-term market.</p> <p>EWRC indicates that the TSO will reduce balancing services and will rely more on title products.</p>
TSO uses Balancing Platform	No	<p>A Balancing Platform is not envisaged under the Bulgarian interim measures.</p> <p>The plan is to use the VTP, potentially improved with a bulletin board.</p> <p>The Agency is of the view that, as liquidity increases, a platform needs to be created in order to facilitate the short-term balancing market.</p>
TSO makes limited use of balancing services	No	<p>The TSO uses alternatives to a balancing platform: the current system relies on balancing service contracts.</p> <p>EWRC indicates that balancing services could be gradually reduced.</p>

TSO transparency about balancing action costs	No	As of April 2017, the TSO did not publish any data.
Full daily cash out implemented	No	A +/-5% tolerance applies, based on the maximum daily capacity of the user's portfolio.
Cash out prices set using TP trades	No	<p>The Daily Imbalance Charge Calculation Methodology foresees two key components:</p> <ol style="list-style-type: none"> 1. one is based on the weighted average price of gas trading, if there are sufficient trades; 2. the other one is the cost component of the price of natural gas for balancing. This component appears to address the recovery of capital costs. <p>Given that there are no plans to implement a Trading Platform, the cash-out price will be based on the recovery of capital cost.</p>
Small adjustment to deliver marginal cash out price	Large	The small adjustment is set between +/-3% and +/-10%. The Agency recommends a smaller adjustment than 10%.
Neutrality fully implemented	No	<p>Some form of neutrality concept is reflected in chapter 5 of the Daily Imbalance Charge Calculation Methodology.</p> <p>There is no explicit charging or credits returned in proportion to network usage as required in the Balancing code.</p>
Within Day Obligations	Extensive	<p>Entry-exit WDOs are applied.</p> <p>Severe restrictions to renominations are applied that limit network users' ability to manage their imbalances and to supply flexibility into the short term market.</p>
Interim measures agreed by NRA	Yes	<p>The NRA approved the Interim Measure Report on 29 September 2015.</p> <p>The TSO's Interim Measure Report highlights an inexistent liquidity on the short-term gas market and the absence of a trading venue (also in neighbouring markets).</p> <p>Therefore, the TSO proposed to apply the following interim measures:</p> <ol style="list-style-type: none"> 1. alternative to a balancing platform (balancing services) 2. interim imbalance charge 3. imbalance tolerance (+/-5% of the maximum daily capacity of the user's portfolio)
Series of steps identified	Yes	<p>The TSO considers the creation of a VTP and the reliance on a regional market as important action points towards lifting the interim measures in the future.</p> <p>The integration of Bulgaria into a larger gas market will require improved interconnections with neighbouring markets and with the transit pipeline.</p> <p>A plan towards an orderly transition would be still necessary, foreseeing milestones for improving and revising the consistency of the rules provided so far.</p>

		<p>After the <i>Country Visit</i>, it was clarified that the provisional start of the new balancing regime is 1 October 2017.</p> <p>Yet the <i>Country Visit</i> also highlighted the absence of other basic elements of a third-package compliant gas system (e.g. entry-exit tariffs, interconnection agreements).</p> <p>Given the absence of fundamental elements and short-term liquidity, and their uncertain development, it is unclear whether the interim measures could end by April 2019.</p>
Evidence of first step	Yes	<p>The NRA has developed most of the legislation and the TSO has implemented some measures by 1 May 2017.</p> <p>Some progress has been made by creating the foundations of the VTP, nominations, and renominations.</p> <p>The TSO has set up, and started the testing phase, of the Commercial Dispatching Platform.</p> <p>The status of the transit network remains unclear for now.</p>
Evidence or process for second step	Envisaged	<p>The annual review of the interim measures would be a tool to be used even after 2019, until liquidity picks up in Bulgaria. The NRA has consulted the updated Interim Measure Report: https://www.bulgartransgaz.bg/files/useruploads/files/amd/Report_vremenni_merki_2en.pdf</p> <p>A detailed roadmap for the delivery of a short-term market would be still necessary to keep the development of the regime on track.</p>

Key elements	Coding	Explanation/ discussion
Implementation date	Interim	Several interim measures are foreseen.
Trade notification enabled	Envisaged	There is no VTP yet in place (prerequisite). However, network users who have booked capacity in the Greek National Gas Transmission System (NGTS) are able to exchange quantities at the Virtual Nomination Point (VNP), through nominations. The extension of this capability to traders (i.e. network user's not holding transmission capacity) will be enabled by the end of 2017, transforming the VNP into a VTP.
Trade notifications processed within x mins	No	There is no VTP at the moment, therefore no trades nor trade notifications. Gas volumes exchanged at the VNP are processed within 120 minutes as of 1 June 2017.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	The nomination and renomination regime specified in the Code is implemented at all pipeline entry and exit points of the Greek NGTS as of 1 June 2017. At the IP Kulata (BG) / Sidirokastro (EL) the second version of the Interconnection Agreement between DESFA and Bulgartransgaz is in place since June 2017 to incorporate the option of renominations at the IP. http://www.desfa.gr/wp-content/uploads/2017/05/IA-V2-0_BusinessRules.pdf
Info requirements - system status	Yes	Aggregate network imbalance and linepack values at the beginning of the gas day are provided for each day, in volume unit; linepack hourly prediction is displayed graphically: http://www.desfa.gr/?page_id=2770&lang=en
Info requirements - TSO balancing actions	Yes	There is limited information available on the TSO website. The relevant file is updated frequently. The market is aware of quantities of gas used within the Balancing Service contract, as well as the relevant unit price applied. http://www.desfa.gr/?page_id=2958&lang=en http://www.desfa.gr/?page_id=2981&lang=en
Info requirements - network user portfolio	Partial	The NRA cross-checked with network users whether information requirements satisfy Article 32(3). Network users' input and offtakes are provided historically, without forecasts: http://www.desfa.gr/?page_id=2790&lang=en
Trading Platform available and used by the TSO	No	No Trading Platform established yet.
STSPs defined and available on Trading Platform	No	STSPs have not been implemented yet due to limited market liquidity, which is expected to increase as soon as the second version of the Interconnection Agreement for the IP Kulata (BG) / Sidirokastro (EL) is in place.

TSO uses Trading Platform as first gas source	No	
TSO uses title product as primary tool	No	
TSO uses Balancing Platform	Envisaged	DESFA is developing a Balancing Platform, which should be operational as of Q4 2017. No detailed plans are available in the public domain.
TSO makes limited use of balancing services	No	<p>Balancing services have been implemented since 2009 and are now compliant with art 8 of the Code.</p> <p>Balancing services are necessary in Greece due to the limited interconnectivity of the Greek NGTS, coupled with the lack of free firm capacity at relevant IPs. The implementation of CMPs and the establishment of interruptible capacity could ease this problem.</p> <p>The procurement of balancing services is based on the provisions of the annual balancing plan: http://www.desfa.gr/?page_id=2974&lang=en http://www.desfa.gr/wp-content/uploads/2016/12/Load-Balancing-for-2017_rev1-1.pdf</p> <p>which is drafted on a yearly basis by the TSO and approved by the NRA, following a public tender procedure.</p> <p>The tendering procedure invites more than one provider to attend.</p>
TSO transparency about balancing action costs	Yes	<p>Balancing actions: http://www.desfa.gr/?page_id=2727&lang=en</p> <p>Balancing gas price: http://www.desfa.gr/?page_id=2981&lang=en</p>
Full daily cash-out implemented	No	The imbalance charge methodology is published. Interim measures apply as regards the tolerance levels (10%) and the price definition. For imbalances beyond the tolerance there is a penalty which increases proportionally with volumes above tolerance levels.
Cash-out prices set using TP trades	No	<p>There is no Trading Platform or Balancing Platform.</p> <p>The cash-out prices relate to balancing services only.</p>
Small adjustment to deliver marginal cash-out prices	None	There are no small adjustments.
Neutrality fully implemented	No	<p>Neutrality rules are defined in Art. 56 (Balancing Settlement Account) of the national Code (second revision): http://www.desfa.gr/wp-content/uploads/2016/03/Unofficial-Translation-of-NC-v3.pdf</p> <p>The current methodology does not fulfil all the requirements of the Code. For now, net balancing neutrality costs over a year are distributed back through</p>

		<p>an annual adjustment. Charges are proportionately spread across the users, in proportion to the total throughput of each user during the year.</p> <p>The same rules apply in the third revision of the national Code.</p> <p>The fourth review of the national Code envisages to deliver the neutrality provisions of the EU Code.</p>
Within-day Obligations	None	-
Interim measures agreed by the NRA	Yes	<p>The Interim Measures Report was published in March 2015.</p> <p>The Report portrays an illiquid short-term market, where even bilateral transactions are not significant. This applies also to the neighbouring countries.</p> <p>As a consequence, the TSO proposed the following interim measures:</p> <ol style="list-style-type: none"> 1. Continuation of the pre-existing balancing scheme 2. Creation of a Balancing Platform (by Q3/2017), potentially evolving into a Trading Platform; 3. Creation of a full renomination cycle; 4. Registration at the VNP of all gas entering the network, with obligation that all transactions take place exclusively at the VNP (to evolve into a VTP); 5. Alternative ways to treat the imbalances and imbalance prices; 6. Reduction of the tolerances. <p>The interim measures are expected to remain in place until 2019.</p>
Series of steps identified	Yes	<p>According to the NRA and TSO, the following actions will lead to the removal of interim measures. Some of these are provisions to boost the regional market and are less specific to balancing.</p> <ol style="list-style-type: none"> 1. Upgrade of the Revithoussa LNG terminal by increasing temporary storage opportunities, which will increase flexibility; 2. Operation of TAP pipeline, which will bring additional sources; 3. Operate the IP at the Greek-Bulgarian border; 4. Transition from a VTP to a regional gas hub 5. Operation of underground gas storage in South Kavala 6. Other regional pipelines to be developed <p>The TSO does not plan to draft an updated Interim Measure Report, which would however be useful given the regulatory changes that take place now.</p>
Evidence of first step	Taken	<p>The Greek market prepares for the establishment of the Balancing Platform.</p> <p>The tolerance limits will be reduced gradually to zero until April 2019, but the current levels are concerning.</p>
Evidence or process for second step	Envisaged	<p>Transferring the balancing responsibility to the network users, leaving the TSO with a residual role would require further legal amendments (fourth revision) of the Gas Network Code, expected by the end of 2017.</p> <p>The NRA informed that a consultation regarding the possible introduction of proxy prices and the selection of the forecasting party will take place.</p>

Key elements	Coding	Explanation/ discussion
Implementation date	Interim	
Trade notification enabled	Yes	
Trade notifications processed within x mins	30	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	
Info requirements - system status	Yes	<p>TSO transparency info is available at: http://web1.gnigtms.ie</p> <p>The information is supplied to network users via logged messages. Within-day these are delivered on an hourly basis.</p>
Info requirements - TSO balancing actions	Envisaged	<p>Retrospective information on balancing action volumes secured via the Balancing Services (buy and sell) contracts is available within a Transportation Monthly Report (which is publically available):</p> <p>http://www.gasnetworks.ie/en-IE/Gas-Industry/Transparency/Transportation-Montly-Reports/</p> <p>Price and cost information will be published to industry shortly.</p> <p>The TSO is currently in the process of making WD information on total network user approved (re)nomination imbalances directly available to network users via the TSO system management system (and having it updated at least on hourly basis).</p> <p>The Transportation Monthly Report is publically available on the GNI Website:</p> <p>http://www.gasnetworks.ie/en-IE/Gas-Industry/Transparency/Transportation-Montly-Reports/</p>
Info requirements - network user portfolio	Yes	<p>NDM processes have been long established in Ireland. The base case information provision should be satisfied.</p> <p>A description of the implementation model is detailed in Part E (Section 1.7) of the ROI Code of Operations:</p> <p>https://www.gasnetworks.ie/corporate/gas-regulation/service-for-suppliers/code-of-operations/PART-E-(BALANCING-AND-SHRINKAGE)-Version-5.01.pdf</p>
Trading Platform available and used by the TSO	Envisaged	<p>The Trading Platform is now available, but not yet used by the TSO.</p> <p>The tender for this service closed on 18 April 2017 and Energy Broking Ireland (EBI) was awarded Preferred Tenderer status. The EBI offering is a brokerage, therefore it is up to individual trading participants to agree bilateral trading agreements with each other, which delayed the go-live date. However, the TP went live on the Wednesday, 20 September 2017. So far there</p>

		are 7 companies using the TP 3 “natural sellers”, 3 “natural buyers” and a “market marker”. It is expected that 2 more “natural” buyers will commence using the TP once their credit and bilateral contracts have been finalised. The TP is available for counterparty use from 5:00 hours to 02:00 hours every calendar day. The TSO expects to be able to participate on the TP before the end of Q2 2018, once their contractual relationship with EBI is finalised.
STSPs defined and available on Trading Platform	Yes	It is envisaged that the TSO will initially secure Within-day and Day-ahead title products on the Trading Platform. Additional products may be secured by the TSO. The Platform will be operational before the end of 2017.
TSO uses Trading Platform as first gas source	Envisaged	Currently, the TSO solely uses balancing services contracts. The TSO expects to be able to participate on the TP before the end of Q2 2018, once its contractual relationship with EBI has been finalised.
TSO uses title product as primary tool	Envisaged	Currently, only Balancing Services are used. However, the TSO is finalising its contractual relationship with EBI and expects to be able to participate on the TP before the end of Q2 2018. The TSO proposes to retain Balancing Services contract arrangements to provide, at least initially, a backup to the use of a Trading Platform, until sufficient liquidity to satisfy balancing requirements via the TP is established.
TSO uses Balancing Platform	No	No Balancing Platform (BP) exists. The TSO proposed the implementation of a BP in June 2016 to the industry. The industry showed no significant appetite for it.
TSO makes limited use of balancing services	Envisaged	The TSO makes use of Balancing Services and these will be retained until the Trading Platform displays sufficient liquidity to provide confidence that Balancing Services may no longer be necessary. The metrics for relevant liquidity are being discussed with industry, but as the Trading Platform is new to Ireland, it is considered prudent to retain the balancing services contracts for the time being.
TSO transparency about balancing action costs	Envisaged	The TSO plans to publish (in the public domain) shortly information on balancing services costs and prices, according to Article 9(4).
Full daily cash-out implemented	Yes	The full daily imbalance is cashed out each day. Tolerances apply at present. The majority of gas cash-out occurs within tolerance, the so called “First Tier”, at a +/- 2% premium/discount to the proxy weighted average price, set by reference to the System Average Price in Great Britain. The TSO has sought views from industry concerning tolerances in light of movement towards the TP.

		The TSO shall review whether existing tolerance thresholds should be altered or removed, once liquidity can and has been determined on the TP.
Cash-out prices set using TP trades	No	<p>The prices are set by reference to the three prices defined in the Network Code in Great Britain: SMP_{Buy}, SMP_{Sell}, and SAP. The Trading Platform that will function in Ireland does not yet provide local reference prices. The TSO uses prices from the adjacent balancing zone in Great Britain, defined by the Trading Platform used by the TSO in Great Britain to balance its network. For the immediate future, however, this will amend to a local IPB reference price.</p> <p>As part of the ongoing balancing discussions, the TSO has sought industry views on the imbalance cashout prices, which will be revised once the TSO participates on the TP.</p>
Small adjustment to deliver marginal cash-out price	Large	<p>Up until September 2016, the small adjustments outside the tolerance levels were at least a +/- 5% of the proxy price (UK-GB SAP). As of 1 September 2016, the small adjustment has been increased up to +/- 25% of the proxy price, to provide further incentives.</p> <p>Further details on the daily imbalance cash-out price charge methodology are available in Part E of the ROI Code of Operations:</p> <p>https://www.gasnetworks.ie/corporate/gas-regulation/service-for-suppliers/code-of-operations/PART-E-(BALANCING-AND-SHRINKAGE)-Version-5.01.pdf</p>
Neutrality fully implemented	Yes	<p>Neutrality principles apply not only to balancing, but also to the costs of the provision of shrinkage gas³.</p> <p>Balancing generates net credits, withheld and refunded only after the end of the Gas Year.</p> <p>However, a recent national Code modification has been proposed to provide monthly settlement to network users from the disbursements account. Net costs are presently charged back to network users on a monthly basis.</p> <p>The methodology for the calculation of the neutrality charges are detailed in description of the implementation model in Part E (art. 30.2) of the ROI Code of Operations:</p> <p>https://www.gasnetworks.ie/corporate/gas-regulation/service-for-suppliers/code-of-operations/PART-E-(BALANCING-AND-SHRINKAGE)-Version-5.01.pdf</p>
Within-day Obligations	None	
Interim measures agreed by the NRA	Yes	First Implementation Monitoring Report signed-off by the NRA on 17 Apr 2015:

³ Shrinkage covers compressor fuel usage, calorific value losses, unaccounted gas after measuring inputs and outputs of the system

https://www.cru.ie/wp-content/uploads/2015/07/CER15086-Interim-Measures-report-regarding-implementation-of-EU-Gss-Balancing-Network-Code.pdf		
Series of steps identified	Yes	<p>Several steps were identified:</p> <ul style="list-style-type: none"> • Tendering of balancing services • Tolerances, to be gradually reduced • Interim imbalance charges, to be gradually set closer to standard cash-out prices
Evidence of first step	Taken	<p>From 1 October 2015, the first step of tolerance reduction took place⁴. Since 1 September 2016, the TSO amended the “Second Tier” daily imbalance cash-out price differentials (to +/- 25% of the proxy price) to provide a further incentive for Irish network users to balance their gas portfolios by the end of the gas day.</p> <p>The TSO has completed a Balancing Arrangement Consultation (https://www.gasnetworks.ie/corporate/gas-regulation/system-operator/publications/balancing-arrangements-co/) and several balancing workshops with industry, to explore stakeholders’ preferences in terms of establishing an enduring balancing solution.</p>
Evidence or process for second step	Taken	<p>The tender issued by the TSO for Trading Platform services provision has been completed and a service provider has been selected. The Trading Platform went live on 20 September 2017.</p> <p>Discussions are currently ongoing with industry, in relation to tolerance reduction and cash-out prices. Once those are aligned with the Code the interim measures could phase out by the foreseen deadline of April 2019.</p>

⁴ First Tier imbalances are cashed-out at a price derived from the weighted average of all trades transacted at the NBP (SAP). They are not exposed to marginal cashout assuming Second Tier imbalances are avoided.

Key elements	Coding's	Explanation/discussion
Implementation date	Interim	After the deadlines foreseen in the Code (Article 46(3), Lithuania announced to follow interim regime.
Trade notification enabled	Yes	VTP effectively enables Trade Notifications.
Trade notifications processed within x mins	30	30 minutes at most for processing of a transaction.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	No	The renomination cycles have been properly designed and implemented. Yet, restrictive rules require network users to nominate a balanced position (TSO's balancing code, art. 42): https://www.ambergrid.lt/en/transportation-services/balancing/inbalancing
Info requirements - system status	Yes	Satisfying specifications from Article 32(1) of the Code: https://www.ambergrid.lt/en/transportation-services/balancing/inbalancing The aggregated imbalances are updated hourly.
Info requirements - TSO balancing actions	Partial	The TSO's balancing code, Art. 57, requires TSO's transparency regarding balancing actions. Amber Grid publishes summary ex-post yearly statistics on its website: https://www.ambergrid.lt/en/transportation-services/balancing/balancing-actions Nonetheless, the values provided are highly aggregated and do not allow to understand the TSO's market behaviour. A higher frequency should be considered as daily balancing markets pick up.
Info requirements - network user portfolio	Yes	Satisfying article 32(3) of the Code, based on the NRA's clarification. Network users are provided with a log-in to the Amber Grid website, as foreseen in the TSO's balancing code, art. 41: https://www.ambergrid.lt/en/transportation-services/balancing/rules-of-balancing
Trading Platform available and used by the TSO	Available	The GET Baltic gas exchange is available for the TSO: https://www.getbaltic.com/en/ NCC reports that STSPs (only title products available) are used rarely and the TSO buys insignificant amounts of natural gas.
STSPs defined and available on Trading Platform	Yes	STSPs (only title) are defined and available.
TSO uses Trading Platform as first gas source	No	In Q3/2017, the TSO started to buy significant amounts of natural gas at the exchange. This correlates with relatively low natural gas prices at the

		exchange. However, more data for a longer period of time are needed to evaluate if the TSO uses the exchange as the primary source.
TSO uses title product as primary tool	No	Based on the assessment using Q3/2017 data. See previous box.
TSO uses Balancing Platform	No	-
TSO makes limited use of balancing services	No	<p>An assessment on Q2/2017 data shows that balancing services are the predominant balancing instrument. However, TSO started to use exchange more actively in Q3/2017.</p> <p>NCC informs the Agency that, upon the end of the balancing services contract, the TSO will review the use of its balancing services and consider starting trading on the TP.</p>
TSO transparency about balancing action costs	Partly	<p>Based on the national rules (Art. 7(1) on “The information to be submitted by the energy undertakings”):</p> <p>https://www.etar.it/portal/it/legalAct/937116e0c3fa11e4bac9d73c75fc910a</p> <p>The TSO shall each month (at the latest 20 days after the accounting month) submit to the NRA a report on the volumes and costs related to balancing.</p> <p>Moreover, the TSO shall each quarter (at the latest 40 days after the accounting quarter) submit to the NRA a report on neutrality.</p> <p>The Transmission System Operator must publish on its website information about balancing services purchased and natural gas purchased or sold for the balancing purposes TSO’s balancing code, Art. 57.</p> <p>TSO publishes limited information about balancing action costs.</p> <p>https://www.ambergrid.it/en/transportation-services/balancing/balancing-actions</p>
Full daily cash-out implemented	No	<p>Tolerances apply (two levels: 5% and 15%), therefore the network user is not exposed to the full daily imbalances:</p> <p>https://www.ambergrid.it/uploads/structure/docs/215_b2e80ece20664eade53e247a6b342dba.pdf</p> <p>(Chapter5)</p>
Cash-out prices set using TP trades	No	<p>In theory, the imbalance charge is set using gas exchange price, but it also includes elements of bilateral trades (same link as above).</p> <p>Marginal buying prices and marginal selling prices of balancing gas are available on the Amber Grid website:</p> <p>https://www.ambergrid.it/en/transportation-services/balancing/pricesofbalancing</p> <p>In reality, the exchange did not deliver daily cash-out prices based on network users’ daily trades.</p> <p>The TSO has presented reformed balancing rules where the marginal buying/selling price definition is compliant with the Code. The NRA has publicly consulted them:</p> <p>http://www.regula.it/en/Pages/Updates/PUBLIC-CONSULTATION-ON-THE-RULES-FOR-NATURAL-GAS-TRANSMISSION-SYSTEM-BALANCING.aspx</p>

Small adjustment to deliver marginal cash-out price	Large	10% applied.
Neutrality fully implemented	No	<p>The neutrality charge is not set separate from transmission tariffs: https://www.ambergrid.lt/uploads/structure/docs/215_b2e80ece20664ead53e247a6b342dba.pdf</p> <p>The neutrality rules foresee that the balancing activity of the TSO is neutral.</p> <p>The transmission tariff is corrected to compensate the eventual profits or losses from balancing actions: http://www.regula.lt/SiteAssets/teises-aktai/o3-367.pdf</p>
Within-day Obligations	None	-
Interim measures agreed by the NRA	Yes	The interim measures (tolerances) have been applied since before the consultation and the approval of the first Interim Measure Report.
Series of steps identified	Yes	Tolerance levels shall be revised annually.
Evidence of first step	Taken	<p>The TSO has consulted the Interim Measures Report until 15 September and then on 28 October submitted it to the NRA for approval: https://www.ambergrid.lt/en/news/news/two-public-consultations-announced https://www.ambergrid.lt/uploads/documents/Ataskaita%20d%C4%97I%20AB%20%E2%80%9EAmber%20Grid%E2%80%9C%20laikin%C5%B3j%C5%B3%20priemoni%C5%B3%20taikymo.pdf (in Lithuanian)</p> <p>In the absence of sufficient liquidity of the short term wholesale gas market, Amber Grid continues to apply tolerances until 2019. The report specifies the actions that the TSO is going to take to discontinue the application of interim measures. The NRA will approve the new Interim Measure Report, which aims to specify how the tolerance may decrease in the next two years.</p>
Evidence or process for second step	Envisaged	<p>A process has started to reform the imbalance cash-out prices in line with the Code.</p> <p>NCC informs the Agency that, upon the end of the balancing services contract, the TSO will review the use of its balancing services and will evaluate whether it uses trading of STSPs more actively.</p>

Key elements	Coding	Explanation/discussion
Implementation date	2016	Implemented by 1 October 2016
Trade notification enabled	Partial	Enabled by 1 October 2015
Trade notifications processed within x mins	30 for WD 120 for DA	In practice immediate response is provided. The same process is used for Trade Notifications and nominations: 30 minutes for processing within-day, 120 minutes for processing day-ahead trade notifications.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP nominations and renominations are enabled and effective from 1 October 2015.
Info requirements - system status	No	<p>Only the end-of-day imbalance is provided: https://www.ign.ren.pt/web/guest/desequilibrios-diarios (monthly excel files are available for download)</p> <p>Other transparency data requirements are provided: https://www.ign.ren.pt/web/guest/capacidades-pcs-pontos-relevantes (monthly excel files are available for download)</p> <p>The end-of-day forecast of imbalance is not available.</p> <p>Linepack data and its hourly end-of-day forecast are also not provided.</p>
Info requirements - TSO balancing actions	Envisaged	<p>Balancing actions via STSPs are not available until MIBGAS is operational in the Portuguese balancing zone.</p> <p>Until MIBGAS can be used also by REN, the TSO operationally relies on the market operator OMIP to perform the balancing actions: https://www.ign.ren.pt/web/guest/acoes-de-compensacao-do-gtg These operations are not compatible with the Code.</p> <p>The balancing services framework was approved by Directive n.18/2016: http://www.erse.pt/pt/gasnatural/regulamentos/operacaodasinfra-estruturas/Documents/Diretiva%2018_2016%20de%2027%20de%20Outubro.pdf</p>
Info requirements - network user portfolio	Yes	<p>“Variant 2” was identified as the preferred option by the stakeholders. The model provides for 3 IDM and for 1 NDM forecast during the Gas Day. The NRA receives the information on a different basis for its oversight: daily data on a monthly basis.</p> <p>Each network user can access its reserved area on the TSO’s website: https://www.ign.ren.pt/ to consult and manage individual information such as nominations, renominations, etc.</p>

Trading Platform available and used by the TSO	Envisaged	<p>MIBGAS is already functioning in the Spanish market and the aspiration is that it will operate in Portugal as well.</p> <p>The start of MIBAGAS in Portugal has encountered important delays and the discussions are at a governmental level. The NRA could not communicate a plausible starting date.</p>
STSPs defined and available on Trading Platform	Envisaged	<p>Beyond the use of linepack (which is not considered a balancing action and accounts for 6 hours of peak demand), the merit order is based on title products (WD and DA) and Balancing Services.</p> <p>Absent a Trading Platform the title products cannot be sold.</p> <p>The TSO uses OMIP for buying and selling imbalance gas on a weekly basis.</p> <p>The merit order is described here: http://www.erse.pt/pt/gasnatural/regulamentos/operacaodasinfr-estruturas/Documents/Diretiva%2018_2016%20de%2027%20de%20outubro.pdf</p>
TSO uses Trading Platform as first gas source	No	The use of the MIBGAS trading platform as the first source for gas balancing in Portugal will be assessed once the TP starts its operations in the country.
TSO uses title product as primary tool	No	A framework for Balancing Services is in place, if needed.
TSO uses Balancing Platform	No	
TSO transparency about balancing action costs	Envisaged	
Full daily cash-out implemented	Envisaged	<p>Full daily cash-out is in place. The methodology is described in Directive n.18/2016 (refer to Procedure nr.14)</p> <p>http://www.erse.pt/pt/gasnatural/regulamentos/operacaodasinfr-estruturas/Documents/Diretiva%2018_2016%20de%2027%20de%20outubro.pdf</p> <p>The PT cash-out price equals the MIBGAS daily imbalance price increased with the daily transmission tariffs.</p> <p>IDM users will be able to use a linepack flexibility service and balance themselves against this cash-out price. NDM users will pay the imbalance charge if imbalances against DA forecasts occur.</p>
Cash-out prices set using TP trades	Envisaged	Presently, prices are set taking the MIBGAS Spanish zone trades as a reference, plus the daily transmission tariffs to flow gas between Spain and Portugal.
Small adjustment to deliver marginal cash-out price	Yes	<p>A small adjustment of +/- 2.5% applies: http://www.erse.pt/pt/gasnatural/regulamentos/operacaodasinfr-estruturas/Documents/Diretiva%2018_2016%20de%2027%20de%20outubro.pdf</p>

Neutrality fully implemented	Yes	<p>Neutrality charges are determined using a pro-rata mechanism, considering the network user's inputs and off-takes from the transmission network.</p> <p>The neutrality charges/credits are invoiced on a monthly basis. They are invoiced along with the transmission charges, but as a different and separate cost item.</p> <p>The neutrality charges are not based on forecasted costs and revenues and Article 30(5) is not applicable. Thus, no separate neutrality charges for balancing, in respect of NDM offtakes is required:</p> <p>http://www.erse.pt/pt/gasnatural/regulamentos/operacaodasinfr-estruturas/Documents/Diretiva%2018%20de%2027%20de%20outubro.pdf</p> <p>(Directive n.18/2016, refer to Procedure nr.15).</p>
Within-day Obligations	None	-

Key elements	Coding	Explanation/ discussion
Implementation date	Interim	<p>The proposed arrangements do not apply to the full network: the Romanian system connecting Ukraine and Bulgaria is not covered.</p> <p>In addition:</p> <ul style="list-style-type: none"> the VTP is not yet underpinned by an entry-exit model, which integrates distribution as well; daily balancing is managed on the entry & exit points individually; the Gas Day shall be also implemented according to EU legislation along with within-day capacity products.
Trade notification enabled	No	<p>Trade notifications cannot be submitted independent of network users' physical flows (no enabling of trade notifications for paper traders).</p> <p>Trade Notifications cannot be submitted within-day.</p> <p>The Agency concludes that trading is not facilitated by a functioning VTP.</p>
Trade notifications processed within x mins	More than 120 min	<p>There is insufficient evidence to classify the timing of the process.</p> <p>Trade Notifications are limited to specific circumstances. The 120 minute processing period (as indicated in ENTSOG's report) is only applicable for limited transaction timings.</p> <p>The network users reported processing up to two working days for transfers within own points, and up to three for transfers to/from another network user.</p>
IP renominations enabled (choice: renomination flexibility at the broader set of points)	No	<p>The Agency's understanding is that nomination and re-nomination windows will need to be implemented (IMR sections 2.2 and 2.3.)</p> <p>Current national rules prevent the nomination of an "open position" (i.e. an out-of-balance imbalance).</p>
Info requirements - system status	No	<p>Start of day linepack is published from 1 Dec 2015: http://www.transgaz.ro/ro/content/line-pack</p> <p>Legal requirement extends to regularly updated linepack projection, or aggregated system imbalance. The Agency found no evidence of any legally compliant approach being implemented.</p>
Info requirements - TSO balancing actions	No	<p>The IMR, section 2.6, indicates that full details of each balancing action will be published for network users. However, Transgaz's website does not publish balancing actions taken and the associated prices.</p>
Info requirements - network user portfolio	No	<p>No evidence that forecasts are provided. Forecasting model and forecasting party has not been established. Network users have no information and understanding about the within-day gas flows in the system.</p>
Trading Platform available and used by the TSO	No	<p>The IMR identifies two existing gas Trading Platforms: the Romanian Commodities Exchange (BRM) and the Operator of the Electricity and Natural Gas Market (OPCOM).</p> <p>The BRM has some limited activity in terms of gas trades:</p>

		<p>http://www.brm.ro/licitatii</p> <p>BRM does not include at least the title products needed by the TSO. There are no standardised products available.</p> <p>Terms and conditions of trades agreed, identification of trading counterparties has been established. The current Platform however does not meet the requirements of a Trading Platform.</p>
STSPs defined and available on Trading Platform	No	No title product is currently available on any of the Platforms. The Agency has no evidence that Transgaz has defined STSPs.
TSO uses Trading Platform as first gas source	No	From the IMR, section 2.6, the tools that Transgaz might use for balancing are defined without merit order.
TSO uses title product as primary tool	No	See above. In addition, the preferred Platform is not clear.
TSO uses Balancing Platform	No	<p>The IMR envisages a Balancing Platform in 2017/18.</p> <p>The upgrading of an existing Trading Platform, or the establishment of a new Trading Platform, should be preferred, but not before the enabling measures (entry-exit system, VTP, trade notification, information release to user) have been put in place.</p>
TSO makes limited use of balancing services	No	<p>The data published does not indicate the tools used for balancing and, specifically, how quantities and costs might be split between short-term products and balancing services.</p> <p>The questionnaire response indicates that the TSO has not procured any balancing services until now.</p> <p>Transgaz has statutory rights of access to UGS. Published information implies that balancing actions are addressed via the use of UGS. The TSO may use storage to manage operational preferences for linepack levels. The extent of balancing services use is not transparent.</p>
TSO transparency about balancing action costs	No	<p>Allocation is the only information published. Yet, as of June 2017, the allocations for November 2016 were not yet finalised:</p> <p>http://www.transgaz.ro/ro/informatii-clienti/platforma-gmois</p> <p>The TSO needs to communicate clearly on the balancing action costs.</p>
Full daily cash-out implemented	No	<p>Interim arrangements are defined using within and beyond tolerance cash-out.</p> <p>Users do not have adequate tools (e.g. renominations, information, platform) to mitigate their exposures, which should be improved as a first step.</p>
Cash-out prices set using TP trades	No	<p>The IMR refers to a set of key inputs to cash-out price determination.</p> <p>Cash-out prices are not based on actual trades, as foreseen by the Code. Basic enablers of a balancing market shall be established before this step is taken.</p>
Small adjustment to deliver marginal cash-out price	Large	Small adjustment is defined as 10% in the IMR.

Neutrality fully implemented	No	No methodology defined.
Within-day Obligations	None	
Interim measures agreed by the NRA	Yes	Approved by ANRE's Decision from 11 November 2015, No. 2296.
Series of steps identified	No	<p>ANRE's Decision No. 2296 requires some actions from Transgaz:</p> <ul style="list-style-type: none"> • standard contracts for sale and purchase of balancing gas (from IMR Section 2.6) by November 2015; • actions and schedule for the elimination of interim measures (by January 2016); • detailed plans to establish and operate the Balancing Platform (by January 2016). <p>There is no clear definition of STSPs and Trading Platform. Steps are not identified across a longer time span.</p>
Evidence of first step	No	<p>No material progress took place until June 2017.</p> <p>The TSO has not sent to the NRA the updated version of the IMR, which should have included an evaluation of the balancing activity carried out in the period 1 December 2015 - 1 June 2016.</p>
Evidence or process for second step	No	<p>In June 2017, a <i>Country Visit</i> involving the EC, ENTSOG, ACER, and the main actors of the Romanian gas market (NRA, TSO, Ministry, stakeholders, etc.) took place. It emerged that essential functional elements were missed in the course of Third Package implementation in Romania.</p> <p>The following steps (and timeline) were agreed:</p> <ul style="list-style-type: none"> • The full establishment of the E-E model, with no restriction on the VTP by 2019. • Finalisation of the national code regulating the VTP, allocations, nominations and renomination, balancing by the end of 2017. • Decision on the information model and forecasting party. Alignment with the Code is expected by July 2018. • Approval of a new neutrality methodology in the near future. <p>The Agency will keep monitoring the progress in the country.</p>

SE - Sweden

Key elements	Coding	Explanation/discussion
Implementation date	Interim	Sweden applies interim measures.
Trade notification enabled	Yes	Swedegas confirms that trade notifications have been implemented and are processed immediately.
Trade notifications processed within x mins	30	Swedegas confirms that trade notifications are confirmed within 30 minutes.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	Based on ENTSOG's implementation report, IP nominations and renominations are enabled.
Info requirements - system status	Yes	<p>The Agency's view is that Article 3.4(5) requests that the closing linepack value is updated on an hourly basis.</p> <p>Swedegas publishes aggregated imbalance positions of users once a day:</p> <p>https://www.swedegas.com/Our_services/services/statistics (select settlement/actual imbalance)</p> <p>The Agency acknowledges that this satisfies the Code specifications Article 32(1). Yet, there is room for improvement.</p> <p>The publication of the aggregate imbalances of all network users is a least effort solution. Hourly updates on projected closing linepack are desirable to support further short-term market development.</p>
Info requirements - TSO balancing actions	Yes	Based on ENTSOG's implementation report and the information provided by Swedegas, all the users are informed about the TSO's actions through a data exchange system.
Info requirements - network user portfolio	No	Sweden applies the base case and users are informed about their position through a data exchange system that flows information instantly. NDM represents 10% of the market. The TSO does not provide NDM forecasts, as operators do not need this forecast.
Trading Platform available and used by the TSO	No	Based on ENTSOG's implementation report, implementation is planned after 2016. The ongoing project of studying potential benefits to have a joint balancing zone, consisting of Denmark and Sweden, is under discussion.
STSPs defined and available on Trading Platform	No	Not yet, the design of STSPs will be followed up in 2017.
TSO uses Trading Platform as first gas source	No	See above.
TSO uses title product as primary tool	No	Not yet. The merger with the Danish balancing zone has been confirmed in Q3/2017, which will pave the way to full Code implementation.
TSO uses Balancing Platform	No	The Member State applies interim measures.

TSO makes limited use of balancing services	No	<p>According to both the NRA and the TSO, Swedegas balances the short-term physical market by regular weekly trades, opening on Mondays. The trade/tender specifications are regulated. For example, it is required to have double the amount of bids for the tendered quantity to go ahead. Prices are negotiated and determined by the users.</p> <p>The Agency notes that it cannot consider the weekly trades as title products and they may neither qualify as pure balancing services. They may qualify as other interim measures, as defined under Article 45(2).</p> <p>http://www.swedegas.com/Our_services/system_responsibility/balance_responsibility/conditions_and_fees</p>
TSO transparency about balancing action costs	Yes	<p>For operational balancing, Swedegas uses two types of balancing actions: short-term regulated trades and post week weekly trades. The former type is, when needed, used in order to maintain the transmission network within its operational limits. The latter trades are used to physically clear the difference between the change in physical linepack position during the week before compared to the one calculated from the sum of primarily allocations of inputs and off-takes for the same week.</p> <p>http://www.swedegas.com/Our_services/system_responsibility/gas_market_council</p>
Full daily cash-out implemented	No	The imbalances are cleared on a monthly basis using the daily and weekly clearing.
Cash-out prices set using TP trades	No	<p>Weekly trades are used, implying a weekly tendering process, which does not deliver a daily cash-out price.</p> <p>The prices obtained in the weekly trades are used for calculation of final settlement prices.</p> <p>The short-term trades are also an option and are used rarely. Linepack services are permitted to the extent that daily trades are not needed.</p>
Small adjustment to deliver marginal cash-out price	None	No information available – see above.
Neutrality fully implemented	No	Few imbalances trigger small potential profits/ losses. These profits/ losses are made transparent to the users and the necessary corrections are settled with the users, at least on a yearly basis.
Within-day Obligations	None	-
Interim measures agreed by the NRA	Yes	<p>On April 1 2015, the Swedish Energy Market Inspectorate (Ei) approved an application from the Swedish TSO, Swedegas, on interim measures regarding gas balancing services in the Swedish market.</p> <p>The report concluded that, due to an insufficiently liquid gas market, Swedegas' balancing regime could not comply with the Code by 1 October 2015.</p>

Series of steps identified	Yes	Energinet and Swedegas have had a market consultation on forming a joint balancing zone in March/April 2017 with mostly positive responses from the market actors. Based on that, the TSOs have taken a decision to implement a common balancing zone. The final decision for implementing will be taken around Jan 2018.
Evidence of first step	Taken	During autumn 2017, a second market consultation will take place. Energinet and Swedegas will also present the final model and a final cost benefit analysis of the project. The goal is to have a common market zone in April 2019.
Evidence or process for second step	Envisaged	The implementation milestones are envisaged, more detailed timelines for the project will follow shortly. The Agency will follow up on the progress made.

Key elements	Coding	Explanation/discussion
Implementation date	Interim	Updated Interim Measure Report: https://www.uregni.gov.uk/sites/uregni/files/media-files/Gas%20Balancing%20%20Interim%20Measures%20Update%20Report%20for%20UR%20Re-Submission.pdf
Trade notification enabled	Yes	The NRA confirmed that Trade Nominations (in local terminology) are in place enabling gas transfer between network users.
Trade notifications processed within x mins	30 min	The trade notifications are processed within 30 minutes
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	
Info requirements - system status	Envisaged	One value for each gas day is supplied and one forecast: http://www.mutual-energy.com/transparency-information/ No hourly updates within-day of projected closing linepack are delivered.
Info requirements - TSO balancing actions	Not updated	Data (volumes and costs) are published for the GY2015/16. Balancing actions buy: http://www.mutual-energy.com/wp-content/uploads/downloads/2017/01/Balancing-actions-Buys-Oct-15-Sept-16.pdf Balancing actions sell: http://www.mutual-energy.com/wp-content/uploads/downloads/2017/01/Balancing-actions-Sells-Oct-15-Sept-16.pdf
Info requirements - network user portfolio	Yes	Northern Ireland uses the base case model for information provision. NDM information is not addressed in the transmission code, but in the Distribution code. Updates on the exit nominations are offered to users on the gas day D-1, and twice during the gas day D. The NRA decided to deal with the reform of the forecasting in a separate process from the balancing reform. The forecasting party should be decided by October 2017. This will allow network users to receive a single aggregate consumption forecast by the forecasting party, as well as their individual ones (by the DSOs).
Trading Platform available and used by the TSO	No	A notional Balancing point has been established, but there is not enough liquidity for the TSO to procure balancing gas.

STSPs defined and available on Trading Platform	No	
TSO uses Trading Platform as first gas source	No	
TSO uses title product as primary tool	No	
TSO uses Balancing Platform	No	
TSO makes limited use of balancing services	No	The TSO uses balancing services relying on purchases from the market in Great Britain. The NRA shall review, on an annual basis, the necessity of such services.
TSO transparency about balancing action costs	No	Network users can follow TSO's costs in their invoices, but this does not satisfy Article 8(7) of the Code. Otherwise, for the concluded GY, NUs can find information (daily volumes and costs, but with yearly frequency) on the TSOs' website: http://www.mutual-energy.com/transparency-information/
Full daily cash-out implemented	No	Tolerances apply and are calculated each year for each individual network user (portfolio-based). The tolerance is applied taking account of the expected contribution of 4 different load categories. Imbalances within the tolerance are cashed-out at a neutral proxy price defined by the System Average Price in Great Britain. Shortfalls beyond the tolerance are charged at 150% of the GB SAP, whereas over deliveries are paid at 70% of GB SAP: http://www.mutual-energy.com/transportation-code-downloads/ (Section 4.2 of PTL and WTL Codes)
Cash-out prices set using TP trades	No	There has been no attempt to establish a Trading Platform.
Small adjustment to deliver marginal cash-out price	Large	Large adjustments (30% and 50%) are applied to the proxy price used as a reference. These are large adjustments, but not applied to a price directly related to the local cost of balancing.
Neutrality fully implemented	Yes	Monthly financial neutrality invoicing occurs: http://www.mutual-energy.com/transportation-code-downloads/ (Section 5.6 in the PTL Code and WTL Code)
Within-day Obligations	None	
Interim measures agreed by the NRA	Yes	The NI TSOs submitted the first Interim Measure Report for approval to the Utility Regulator in December 2014. The NRA approved the Report in March 2015. The interim measure included:

		<ul style="list-style-type: none"> • the use of balancing services as an alternative to a balancing platform, • Portfolio-based tolerances (between 3% and 20%), • And interim imbalance charges. A new Report followed this year.
Series of steps identified	Yes	The TSO aimed at launching anew the balancing service tender and starting the Trading Functionality (NI Balancing Point).
Evidence of first step	Taken	<p>The TSO has adopted the tolerances and cash-out pricing (based on Proxy prices from the ones in Great Britain).</p> <p>The TSO launched the balancing services tendering, including changes trying to stimulate liquidity. The new tender did not succeed to procure all balancing gas needed, despite the innovations made on</p> <ul style="list-style-type: none"> • allowing the provision of smaller gas quantities • changing the service's price structure. <p>The TSO also introduced the NI Balancing Point as the delivery point for balancing gas. For now, only three network users have actively been trading at the NI BP without affecting the proportion of the balancing services used.</p>
Evidence or process for second step	Envisaged	<p>The Utility Regulator approved the updated Interim Measure Report in July 2017. All existing interim measures have been retained.</p> <p>In order to tackle the persisting lack of liquidity, the TSOs proposed changes to the price structure for balancing gas buy contracts in the next year's tender.</p> <p>The TSOs and NRA do not see a likely the development of a functioning Trading Platform, due to the small size of the balancing zone and the proximity of the very liquid NBP market in GB. Even if a TP was developed, this would unlikely provide the NI TSO with enough liquidity to end the balancing service's tendering.</p> <p>A balancing platform could be considered, if the market develops in the following years. New interconnections with Ireland or GB may help in this respect. In any case, it is not clear if a NI-based Balancing Platform would produce a more efficient outcome than the present NBP-price-based system.</p> <p>The possibility for the TSO to trade in adjacent balancing zones might be contemplated in the future, as an alternative to a balancing platform.</p> <p>Following the developments which may occur in GY2017/18, the NRA will consider the possibility of undertaking a feasibility study for starting a Balancing Platform or for allowing TSOs' trading in adjacent balancing zones.</p>

1.1.2 Balancing zones without a Trading Platform (but having a Balancing Platform)

PL - Transit zone (Yamal)

Key elements	Coding	Explanation/discussion
Implementation date	Interim	Interim measures are likely to be retained until April 2019 due to lack of liquidity. Chapters 14 and 15 of the Transmission Network Code specifically address balancing regulation: http://en.gaz-system.pl/fileadmin/pliki/sgt/en/TGPS_TNC_EN_approved_20160203.pdf
Trade notification enabled	Yes	The TSO has enabled a Trade Notification facility. Network users can submit day-ahead trade notifications only. This is independent from the interface associated with the TGE Platform (see opening hours of TGE below).
Trade notifications processed within x mins	120	The TSO uses similar functionality to that used for physical nomination/renomination approval and the time for processing is 120 minutes.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP renominations and processes are in place. The renomination cycles start at 16:00 hours of Gas Day D-1 and ends at 3.00 am. on Gas Day D: http://en.gaz-system.pl/fileadmin/pliki/sgt/en/TGPS_TNC_EN_approved_20160203.pdf (See Chapter 12.3) The timelines are one hour shorter both at the start and at the end of the Gas Day.
Info requirements - system status	No	The TSO publishes the aggregate imbalance position of all users: http://en.gaz-system.pl/en/customer-zone/transit-yamal-pipeline/tsotransparencytemplate0/ https://swi.gaz-system.pl/swi/public/embed.seam URE considers that all publication requirements are met. As the regime develops, the Agency recommends to also publish linepack data.
Info requirements – TSO balancing actions	Yes	No balancing action took place in gas year 2015-2016: http://en.gaz-system.pl/customer-zone/transit-yamal-pipeline/balancing-services-market/system-services-performed/
Info requirements - network user portfolio	N/A	There are no non-daily metered off-takes in this zone. The zone does not have many access points and balancing portfolios are known to the network users. All the points at the network link the area with other transmission systems. The TSO allocates users what they nominate. For this reason, the below link is used rarely. http://en.gaz-system.pl/customer-zone/transit-yamal-pipeline/balancing-services-market/system-services-performed/

Trading Platform available and used by the TSO	Not used	<p>The Polish Power Exchange, TGE, provides the TP.</p> <p>The statistics regarding the product (DA) for the TGPS are empty, indicating that the platform is not used at all for the TGPS:</p> <p>https://gaz.tge.pl/en/rdn/gas/index/index/</p> <p>Article 14.1.6.2 of the Transmission code also specifies that the TSO can use another trading platform (EEX, allowing access to the German market).</p>
STSPs defined and available on Trading Platform	Yes	<p>A day-ahead product is defined and visible at the TGE. The product allows exchanging the title of gas, via the VTP, between two portfolios within the TGPS.</p> <p>Trading is available only from 9:00 to 15:30 hours.</p> <p>As at February 2017, only 2 out of the 26 network users present in the TGPS were allowed to trade at the TGE.</p> <p>The product was never traded.</p>
TSO uses Trading Platform as first gas source	No	<p>The national code foresees the use of the Trading Platform, but it was never used as the system was never out of balance.</p>
TSO uses title product as primary tool	No	<p>The national code prescribes the title product as primary tool, but it was never used because the system was never out of balance.</p>
TSO uses Balancing Platform	Available but not used	<p>A balancing platform is available (the same available in the H- and L-gas areas) and designed for temporary use.</p> <p>http://en.gaz-system.pl/fileadmin/pliki/sgt/en/TGPS_TNC_EN_approved_20160203.pdf</p> <p>The balancing platform has not been used for the TGPS.</p>
TSO makes limited use of balancing services	No	<p>The TSO has not used balancing services in the TGPS.</p>
TSO transparency about balancing action costs	Yes	<p>A yearly summary of the costs is available at:</p> <p>http://en.gaz-system.pl/customer-zone/tariff/balancing/balancing-actions-nc-bal/</p> <p>The TGPS has had no balancing action, hence no cost so far:</p> <p>http://en.gaz-system.pl/fileadmin/pliki/taryfa/pl/publikacje_BAL_NC_art_8_ust_7_9_ust_4_EN_v2.pdf</p>
Full daily cash-out implemented	No	<p>The methodology is described below. Yet, since there has not been any imbalance on the TGPS, the cash-out price was never applied. Proxy prices apply.</p> <p>http://en.gaz-system.pl/fileadmin/pliki/sgt/en/TGPS_TNC_EN_approved_20160203.pdf</p> <p>(chapter 13)</p>
Cash-out prices set using TP trades	No	<p>Interim imbalance charges apply.</p> <p>Imbalance prices are based either on the TGE or on the EEX:</p>

		<p>http://en.gaz-system.pl/fileadmin/pliki/sgt/en/TGPS_TNC_EN_approved_20160203.pdf</p> <p>(page 5 and 6, definitions of Marginal Sell Price and Marginal Buy Price)</p> <p>The actual prices are published at:</p> <p>https://swi.gaz-system.pl/swi/public/embed.seam?viewId=E_PUB_120_SGT&lang=EN</p> <p>For the moment, no network user was exposed to the imbalance prices.</p>
Small adjustment to deliver marginal cash-out price	Large	<p>A similar instrument to a small adjustment applies to the proxy prices and decreases or increases their values by either 0.9 or 1.1.</p> <p>For the moment, no network user was exposed to these proxy prices.</p>
Neutrality fully implemented	Yes	<p>Monthly neutrality report is available at:</p> <p>http://en.gaz-system.pl/customer-zone/tariff/balancing/mechanism-for-assuring-cost-neutrality/</p> <p>The methodology for the neutrality calculation is available at:</p> <p>http://en.gaz-system.pl/fileadmin/pliki/taryfa/en/Mechanism_ensuring_cost_neutrality_of_balancing_measures.pdf</p> <p>Due to the fact that there are no network users' imbalances nor TSO's actions, there are no credit nor debit attributable to neutrality:</p> <p>http://en.gaz-system.pl/customer-zone/tariff/balancing/neutrality-fee-rate/</p>
Within-day Obligations	None	-
Interim measures agreed by the NRA	Yes	<p>On the TGPS, the following interim measures apply:</p> <ol style="list-style-type: none"> 1. Interim imbalance charge 2. Balancing platform
Series of steps identified	Yes	<p>The interim measures will be removed when:</p> <ol style="list-style-type: none"> a) the level of short term churn ratio/market liquidity and b) availability of short term products <p>will be sufficiently high in the TGPS.</p>
Evidence of first step	Yes	<p>Among the initial steps (2015) there were:</p> <ul style="list-style-type: none"> • the creation of the VTP and • Trading Platform
Evidence of second step	Envisaged	<p>In September 2016, the NRA approved the first updated Interim Measure Report:</p> <p>http://en.gaz-system.pl/fileadmin/pliki/taryfa/en/sprawozdanie_srodki_tymczasowe_20160926_EN_ZATWIERDZONE.pdf</p> <p>The zone liquidity has not improved, so the NRA decided to maintain the interim measures. The NRA planned to:</p> <ul style="list-style-type: none"> • Put pressure and increase the availability of short-term gas trading on the gas exchange for a longer time span (TGE involved) • To schedule the merger of the H-gas with the TGPS balancing area.

The newly updated Interim Measure Report regarding GY 2016/17 was approved on 29 September 2017:

<http://en.gaz-system.pl/centrum-prasowe/aktualnosci/informacja/arttykul/202509/>

http://en.gaz-system.pl/fileadmin/centrum_prasowe/Aktualnosci/sprawozdanie_srodki_tymczasowe_201706_EN.pdf

(link to the consultation)

The report shows the limited progress and brings the same reasoning and reaches the same conclusions as the previous one.

As a novelty, the merger of the H-gas with the TGPS zone is no longer among the actions planned by the NRA.

The Report foresees that the TSO will conduct an analysis on the implementation of within-day obligations in the GY 2017/2018. It is thus possible that the TSO will start the process to introduce them into TGSP balancing zone. The within-day obligations will be subject to the approval of URE. The Agency recommends that the provisions of Article 26(2) are followed through.

Key elements	Coding	Explanation/discussion
Implementation date	Interim	<p>On 15 April 2015, URSO published a decision on interim measures. Eustream submitted its report to the NRA in October 2014. The Agency received both documents.</p> <p>The TSO applies updated balancing rule according to the Operational Order, chapter 9:</p> <p>http://www.eustream.sk/files/docs/eng/Operational_Order_2017_EN.pdf</p>
Trade notification enabled	Yes	
Trade notifications processed within x mins	120 min	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	<p>Only old legacy contracts present renomination restrictions, since they need to be always balanced.</p> <p>The TSO may change the nominations in case of threats to the transmission system (Operational Order, chapter 9.4)</p>
Info requirements - system status	No	<p>Eustream publishes the projection for the end-of-day aggregated system imbalance. The data is updated hourly:</p> <p>https://tis.eustream.sk/TisWeb/#/?nav=bal.sysimb</p> <p>The linepack forecast is not published.</p>
Info requirements - TSO balancing actions	No	<p>The TSO performs balancing actions in case the total system imbalance surpasses +/- 2,000 MWh. The objective is to bring the system back to a close-to-zero imbalance:</p> <p>https://tis.eustream.sk/TisWeb/#/?nav=bal.ba</p> <p>Eustream sends information about planned balancing actions to users registered on the Balancing Platform (eighteen NUs registered as at July 2017) via email.</p> <p>Since February 2016, Eustream conducted ten auctions (eight successful, two without participants) on the Balancing Platform:</p> <p>https://tis.eustream.sk/TisWeb/#/?nav=bal.bp.bba (choose "all")</p> <p>Eustream also discloses other information under the regulation here:</p> <p>http://www.eustream.sk/en_transmission-system/en_other-information/en_3122014-requirements</p>
Info requirements - network user portfolio	Yes	<p>There are no NDM customers connected to the transmission system. Therefore, no information model and forecasting party was identified. The distribution network is not part of the transmission system balancing system.</p>
Trading Platform available and used by the TSO	No	<p>Slovakia has a Balancing Platform and has no Trading Platform.</p>

STSPs defined and available on Trading Platform	Yes	Title products are offered on a Balancing Platform. All auctions conducted were for Day-Ahead Title Transfer products: https://tis.eustream.sk/TisWeb/#/?nav=bal.bp.bba
TSO uses Trading Platform as first gas source	No	Eustream acts on a Balancing Platform, which is used as the first gas source: https://tis.eustream.sk/TisWeb/#/?nav=bal.bp.bba
TSO uses title product as primary tool	Yes	See above (auctioned title products). After DA title products, the merit order includes: <ul style="list-style-type: none"> • Balancing services (based on procurement competition) • Transaction with the neighbouring Austrian market CEGH
TSO uses Balancing Platform	Yes	Slovakia has a Balancing Platform and conducted seven auctions for Day-Ahead Title Transfer products: https://tis.eustream.sk/TisWeb/#/?nav=bal.bp.bba
TSO makes limited use of balancing services	No	Slovakia foresees the possibility for the TSO to use balancing services when STSPs are not likely to sufficiently address the needs of the market or network. The TSO used balancing services five times in 2016. (http://www.eustream.sk/en_transmission-system/en_other-information/en_3122014-requirements) In 2017, market players did not provide balancing gas via the public procurement procedure. Hence, if the system is imbalanced and STSPs are not sufficient, the TSO may rely on title products on the Austrian market CEGH.
TSO transparency about balancing action costs	Partial	Eustream discloses information for the running month: http://www.eustream.sk/files/docs/eng/Neutrality_account.pdf and from the auction history: https://tis.eustream.sk/TisWeb/#/?nav=bal.bp.bba Eustream also publishes yearly information on the following address: http://www.eustream.sk/en_transmission-system/en_other-information/en_3122014-requirements The confirmation of the financial statement for 2016 is still pending (as of July 2017).
Full daily cash-out implemented	No	Slovakia applies interim daily imbalance charges. Network users' daily imbalance quantities are reduced to zero each day, on payment of the interim imbalance charges: http://www.eustream.sk/files/docs/eng/pricelist2017.pdf
Cash-out prices set using TP trades	No	Prices are set based on the Austrian market CEGH. The methodology for the calculation of the price applied to determine the imbalance charge can be found in the Price decision, paragraph 4.2: http://www.eustream.sk/files/docs/eng/pricelist2017.pdf

Small adjustment to deliver marginal cash-out price	Large	The small adjustment has been decreased from 10% to the current level of 7% - valid from 14.12.2016.
Neutrality fully implemented	Yes	The general principles of the methodology are available at: http://www.eustream.sk/files/docs/eng/pricelist2017.pdf (see chapter 4)
Within-day Obligations	No	
Interim measures agreed by the NRA	Yes	Yes, according to a letter sent to the Agency (Decision No. 001/2015/P-PD: http://www.urso.gov.sk:8088/CISRES/Agenda.nsf/webFormRozhodnutiaOther?OpenForm&Category=P Approved Report on Interim measures: http://www.urso.gov.sk:8088/CISRES/Agenda.nsf/0/4A2CCA0B7F44654AC1257E28003E2526/\$FILE/0001_2015_P-PD%20web.pdf Approved Annual update to Report on Interim measures: http://www.urso.gov.sk:8088/CISRES/Agenda.nsf/0/0DDF5989EEA1A073C12580EB00487FA8/\$FILE/0001_2017_P-PD.pdf
Series of steps identified	Yes	This is confirmed in the first interim report from Eustream (Section 7). Eustream will, by 1 October of every year, submit an evaluation report on the implementation. Eustream will present results of monitoring the effectiveness of the measures, evaluate the degree of liquidity of the market and propose necessary measures. It is foreseen to operate Balancing Platform and to keep the interim imbalance charge until April 2019.
Evidence of first step	Taken	The Balancing Platform is operational.
Evidence or process for second step	Envisaged	The NRA approved the New interim measures report (2017): http://www.urso.gov.sk:8088/CISRES/Agenda.nsf/0/0DDF5989EEA1A073C12580EB00487FA8/\$FILE/0001_2017_P-PD.pdf No major changes occurred. The small adjustment has been decreased from 10% to 7%. The report was not made available to the Agency. Eustream has initiated discussion with energy exchange service providers. The main target of these discussions is to abolish the interim measures by 2019.

1.2 Balancing zones with a Trading Platform

1.2.1 Balancing zones with significant updates

CZ-Czech Republic

Key elements	Coding	Explanation/discussion
Implementation date	2016	The Code is implemented with effect from 1 July 2016. (Public notice No. 416/2016, "Market rules") https://www.eru.cz/documents/10540/1841787/349_2015_PTP_Amended_ENG.pdf/fe7b9b9b-9859-4cce-9f2a-190350251124
Trade notification enabled	Yes	Trade Notifications are described as <i>input and off-take obligation nominations</i> (Section 62). Interface to users is via the market operator (OTE) (Section 74(4)). This extends to physical renominations as well. The market operator submits the resulting (re)nominations to the TSO. Cleared entities can renominate up to 05:00 on the relevant Gas Day.
Trade notifications processed within x mins	30	Trade Notifications: users see the confirmation or rejection within less than 30 minutes.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	Rules were ready by 1 Oct 2015. Nominations timelines of the Code are followed. Renominations are possible throughout the day (Section 69). An exception holds for any network user who has not signed an imbalance settlement agreement with OTE (Energy Act, Art. 72(8)): in such a case, the network user must nominate balanced entry and exit for the transmission network (transit) and the storage facilities (Article 17(2)). Network users who lack the aforementioned agreement with OTE are not allowed to trade at the VTP nor to deliver gas to customers. In this case, no trading licence is required.
Info requirements - system status	Envisaged	The TSO provides the aggregate balance positions of all users at the beginning of every balancing period and a forecast of this aggregate at the end of every gas day. Information on actual and future demand and supply of gas is also published once a day at: http://extranet.net4gas.cz/supply_demand.aspx Moreover, the TSO publishes a forecast of the linepack in the transmission system for the following gas day (Market Rules, Article 32(1) (I) and (M)) at the end of each gas day. According to the Market Rules, the TSO shall update the forecast hourly, within day. Yet there is no evidence of such an update process. According to the NRA the hourly forecast update should be in force as of 1 January 2018. http://extranet.net4gas.cz/linepack.aspx According to the NRA, " <i>The Czech gas transmission is predominantly transit in nature (with a ratio of domestic consumption to total throughput of 1 to 5)</i> ". The linepack contains these large transit volumes.
Info requirements - TSO balancing actions	Yes	The TSO's Account gas requirements are defined after the end of the unused flexibility auction. Depending on how much gas is required by the system, the TSO decides to secure the needed quantities for the following day or for the current day. Based on Article 92(6), within 60 minutes from the completion of its balancing action, the TSO shall publish, through the market operator's information system, information about the completed balancing action. This link provides the daily values:

		http://ote-cr.cz/statistics/imbalances-nc-bal-gas/balancing-actions
Info requirements - network user portfolio	Envisaged	<p>Prediction of daily consumption of non-daily metered points for current gas day is updated twice during the day – at 13:00 and 23:00 as set in Article 102(2) and (3) of the gas market rules.</p> <p>DSOs have addressed the issue of the few remaining (as at mid-2017) Type B metering (their related consumption is daily profiled, and not forecast as explained above).</p> <p>1st update: http://www.ote-cr.cz/statistics/nc-bal-gas/temperature-and-recalculated-TDD-first-update</p> <p>2nd update: http://www.ote-cr.cz/statistics/nc-bal-gas/temperature-and-recalculated-TDD-second-update</p>
Trading Platform available and used by the TSO	Available and used	<p>OTE is an available proven platform used by the market. http://www.ote-cr.cz/</p> <p>Unused flexibility market (through the linepack): http://www.ote-cr.cz/short-term-markets/gas/unused-flexibility-market/page_report_146</p> <p>Intra Day Market: http://www.ote-cr.cz/short-term-markets/gas/intra-day-market/page_report_127</p>
STSPs defined and available on Trading Platform	Yes	<p>STSPs are defined. The TSO shall primarily use the within day and DA markets. (The TSO opts for the DA product if its gas need is not immediate). TSO also trades with the adjacent balancing zone, and only as a last resort uses balancing services.</p> <p>Network users can have access to the unused flexibility market as well. Network users can buy flexibility on the day for the preceding Gas Day, using OTE within-day market. The unused flexibility market is open daily from 13:00 to 13:45.</p>
TSO uses Trading Platform as first gas source	Yes	<p>Network users have also access to the ex-post unused flexibility market, which may undermine the users' incentives to balance daily, at marginal price.</p> <p>According to ERU, “[...] <i>balancing actions should be consistent with economic and efficient operation of the transmission network; [...] TSO to have regard [...] to operate an economic and efficient transmission network. Given [that...] [transit is predominant] a threshold has been set under which no balancing action is required. ERÚ regards the chosen model cost-effective and, encouraging to retail competition for new entrants.</i>”</p>
TSO uses title product as primary tool	Yes	<p>The TSO has to go to the market first. If the market does not deliver transactions, the TSO can choose the following merit order product.</p> <p>As at mid-July 2017, the market was always successful in delivering the requested quantities.</p>
TSO uses Balancing Platform	No	
TSO makes limited use of balancing services	Yes	<p>Not used so far. The TSO can use them only as last resort. There is no stand-by fee for balancing services, if not used.</p> <p>In the past, balancing services were storage-based with fixed payments. They were frequently used and more expensive.</p>
TSO transparency about balancing action costs	Yes	<p>The link below provides the details of all TSO's balancing actions (potentially outside OTE or Balancing Services): http://ote-cr.cz/statistics/imbalances-nc-bal-gas/balancing-actions</p>

		<p>The TSO shall publish any balancing actions through OTE within 60 minutes from its completion (Article 92(6)).</p> <p>An up-to-date summary of the imbalances and associated costs is also available:</p> <p>http://www.ote-cr.cz/statistics/yearly-market-report</p>
Full daily cash-out implemented	No	<p>The Agency understands that not all daily imbalances are subject to an end of the day cash-out.</p> <p>Beyond the linepack flexibility service provided on the Gas Day, NUs serving end-users can also have access to ex-post flexibility via the unused flexibility market. The ex-post market allows such NUs to cover for imbalances occurred the day before that could not be accommodated via the available linepack flexibility service. Hence, not all daily imbalances are subject to cash-out.</p> <p>The unused flexibility market and the intraday market bring about the same gas volumes. The Agency is of the view that the unused flexibility market's volumes could be a proxy to estimate the size of missed market exposure.</p> <p>The Agency also notices that the ex-post market for unused flexibility has lower prices than the gas market. Since the price on the ex-post unused flexibility markets are low and the available volumes high, the NUs may have little incentive to balance their position by the end of the gas day.</p> <p>The prices expressed by the unused flexibility market may be compared with the small adjustment: in fact, the NUs can decide whether to be exposed to the imbalance price on the Gas Day, or to be exposed to the price of available unused flexibility the day after.</p> <p>ERU is of the view that the unused flexibility market lowers balancing costs for the small users and does not hamper market liquidity. ERU finds the current cashout scheme satisfactory.</p>
Cash-out prices set using TP trades	Yes	<p>Cash-out prices are a function of OTE Traded prices.</p> <p>Rules address also specific cases, when only a single trade or days with traded quantities less than 100 MWh occur. This rule has not been used so far.</p>
Small adjustment to deliver marginal cash-out price	Small to Medium	<p>The schedule 10 of the national code defines the range from 2 to 5% for each of marginal buy price and sell price. The adjustment is a function of both the size and the direction of the system imbalance.</p> <p>The average value so far (from 1 July 2016 to end of July 2017) was 2.4%, and below 3% for 94% of the days. The maximum value reached 4.5%.</p>
Neutrality fully implemented	No	<p>No explicit charge/credit for Balancing Neutrality identified within invoicing. Since the NRA considers these costs small, the related cash flows are absorbed into the transportation tariffs.</p> <p>According to the NRA: <i>"[...] This is ensured through a dedicated regulatory subaccount as per the gas price decision as amended on 1 July 2016 (available at http://www.eru.cz/documents/10540/2041142/ERV_5_2016, only in Czech) as only very few balancing actions are expected to occur. That, in connection with the information provision model implemented, reduces the need and indeed the very purpose of having short-term neutrality charges. The Czech balancing system is set that the costs are close to zero. This refers also to NUs' costs, in case of good consumption prediction and no speculation. So we see the global TSO+NUs cost to be minimal."</i></p> <p>The NRA focuses only on the TSO's side of neutrality (while neutrality costs or revenues may occur also due to NUs' activity).</p>
Within-day Obligations	None	

Key elements	Coding	Explanation/discussion
Implementation date	2016	Transitory measures – Fully operational from 1 April 2017
Trade notification enabled	Yes	<p>VTP enables Trade Notifications. As confirmed by HERA, notifications are enabled for any gas trader or gas supplier registered as balancing responsible party.</p> <p>The VTP is operated by the TSO. From October 2017, the VTP will be operated by the market operator.</p> <p>The VTP is operational 24 hours a day. Transactions should be done the latest by 10:30 am for day ahead or 2 hours before within-day transactions:</p> <p>http://www.hrote.hr/secondary-legislation (see article 10 of the Rules on the Organisation of the Gas Market)</p> <p>The trading platform is operational from 8:00 to 23:00 hours:</p> <p>http://files.hrote.hr/files/PDF/SOOTP/2017/Upute_za_koristenje_trgovinske_platforme.pdf</p>
Trade notifications processed within x mins	120	Based on the ENTSOG report, confirmed by the NRA.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP renominations and systems processes are enabled.
Info requirements - system status	Yes	<p>Prescribed by the <i>Transmission system network code</i>:</p> <p>http://www.plinacro.hr/default.aspx?id=577</p> <p>The TSO publishes forecasts of Aggregate Imbalance Positions for end-of-day for the current gas day, from 9:30 to 22:30 hours:</p> <p>http://www.plinacro.hr/default.aspx?id=785</p> <p>Additionally, the TSO publishes the actual quantity of delivered gas (aggregated for exits from transmission system to distribution systems) for the period from 9:30 to 22:30 hours, with hourly frequency:</p> <p>http://www.plinacro.hr/default.aspx?id=799</p> <p>Linepack data is not published.</p>
Info requirements - TSO balancing actions	Yes	<p>As prescribed by Article 58 of the <i>Transmission system network code</i>.</p> <p>The TSO publishes the thresholds (positive and negative) of Aggregate Imbalance Positions for the gas day. The thresholds are published 24 hours in advance with respect to their application:</p> <p>http://www.plinacro.hr/default.aspx?id=785</p> <p>Gas Market Operator (GMO) publishes the balancing actions (via trading platform or via balancing service) of the TSO:</p> <p>http://www.hrote.hr/energija-uravnotezenja-109</p> <p>(see “AKTIVIRANA ENERGIJA URAVNOTEŽENJA” – which translate to Activated Balancing Energy)</p>

		The publication format may need some further specifications. The GMO will make efforts to improve transparency (English language, simplified screens, DA/WD products, transactions between network users, links to TSO information, etc.).
Info requirements - network user portfolio	Envisaged	<p>The TSO has been selected as forecasting party. Yet the NDM consumptions are not forecasted at the moment, they are envisaged from April 2018.</p> <p>Instead the TSO makes available to each user (organiser of Balancing Responsible Party) access to a daily report on:</p> <ul style="list-style-type: none"> – actual quantity of delivered gas (for each exit from transmission system on which a member of a Balancing Responsible Party has reserved capacity) – latest confirmed (re)nominations for each member of a Balancing Responsible Party – allocated quantity of delivered gas (for each member of a Balancing Responsible Party) – confirmed transactions on Virtual Trading Point and Trading Platform <p>The TSO publishes daily report in periods:</p> <ol style="list-style-type: none"> 1. At 12:00 hrs: refers to the period 06:00 – 10:00 hrs of the current gas day. 2. At 20:00 hrs: refers to the period 06:00 – 18:00 hrs of the current gas day.
Trading Platform available and used by the TSO	Yes	<p>The Trading Platform is defined by the <i>Rules on the Organisation of the Gas Market</i> and is operational from April 2017. The TP is run by the Gas Market Operator:</p> <p>http://www.hrote.hr/secondary-legislation</p> <p>http://www.hrote.hr/energija-uravnotezenja-109</p> <p>(see “AKTIVIRANA ENERGIJA URAVNOTEŽENJA” – which translate to Activated Balancing Energy)</p>
STSPs defined and available on Trading Platform	Yes	<p>STSPs are defined (title and locational, both DA and WD) by the <i>Rules on the Organisation of the Gas Market</i> and traded on the Trading Platform from April 2017:</p> <p>http://www.hrote.hr/secondary-legislation</p>
TSO uses Trading Platform as first gas source	Yes	<p>TSO has tendered Balancing Service for period of 12 months (from April 2017 until March 2018).</p> <p>In the first month - April 2017., TSO has used 32.438 MWh of STSPs and 0 MWh of balancing service</p> <p>http://files.hrote.hr/files/OTP_WEB/TPReports/Month/HROTE-OTP-TP_stats_2017_4.xlsx</p> <p>(sheet “TrgovanjaOTS” shows STSPs, and sheet “UsUr” shows balancing service)</p>
TSO uses title product as primary tool	Yes	<p>The TSO uses title products as primary tool. If there is a need for local flow change in the system, locational products are used.</p>

		<p>In Q2/2017 the TSO used nearly 95 GWh of WD title and only 0.2 GWh of locational products.</p> <p>Balancing service is used if economic conditions are met (better price, additional quantity). The service was not used in Q2/2017, which was the first successful quarter the new regime closed.</p>
TSO uses Balancing Platform	No	The Balancing Platform is not used (as of 31 March 2017).
TSO makes limited use of balancing services	Yes	In the new regime, the TSO has still envisaged the use of balancing services. In April 2017, TSO has used 0 MWh of balancing service.
TSO transparency about balancing action costs	Yes	<p>The GMO publishes a monthly report on balancing actions with regard to cost, frequency and quantity of balancing action.</p> <p>http://files.hrote.hr/files/OTP_WEB/TPReports/Month/HROTE-OTP-TP_stats_2017_4.xlsx</p> <p>(sheet "TrgovanjaOTS" shows STSPs, while sheet "UsUr" shows balancing service)</p> <p>The network users' balancing trades are not publicly visible at the moment (there are available only to the network users).</p>
Full daily cash-out implemented	Yes	<p>Full daily cash out is prescribed by the <i>Rules on the Organisation of the Gas Market</i> and implemented from April 2017. It is carried out by the Gas Market Operator according to Article 21 of the Rules on the Organisation of the Gas Market:</p> <p>http://www.hrote.hr/secondary-legislation</p>
Cash-out prices set using TP trades	Yes	<p>Cash out prices are prescribed by the <i>Rules on the Organisation of the Gas Market</i> and implemented from April 2017:</p> <p>http://www.hrote.hr/energija-uravnotezenja-109</p> <p>(sheet "Marginalna_cijena" shows development of buy and sell prices – the last price for a gas day is the cash out price)</p>
Small adjustment to deliver marginal cash-out price	Large	The small adjustment (10%) is prescribed by the <i>Rules on the Organisation of the Gas Market</i> . It has been implemented and used since April 2017.
Neutrality fully implemented	Partially	<p>Neutrality is prescribed by the <i>Rules on the Organisation of the Gas Market</i> (art. 19) and implemented from April 2017. The GMO charges neutrality charge and publishes a related report monthly:</p> <p>http://www.hrote.hr/obracuni</p> <p>The neutrality methodology applies a causer/helper principle and does not apply Article 30(3).</p>
Within-day Obligations	None	

Key elements	Coding	Explanation/discussion
Implementation date	2016	Full implementation from 1 October 2016.
Trade notification enabled	Partial	VTP effectively enables Trade Notifications. Certain restrictions will still apply for a certain period, in particular VTP trades cannot be registered between 3-6 am at least at day-ahead and within-day up to 3 am on the morning of the Gas Day.
Trade notifications processed within x mins	30	Trade notifications are processed instantaneously and do not take more than 30 minutes for within-day and 120 minutes for day-ahead
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	The Southern IPs (where foreign TSO are not bound to implement EU legislation) do not follow the nomination / renomination lead times. Despite not bounded by EU legislation, the IP with Switzerland implemented renominations starting from 15 October 2016.
Info requirements - system status	Yes	Updates of both projected closing linepack and forecasted off-takes are provided on an hourly basis by the TSO. http://www.snamretegas.it/en/services/Gas_transportation/8_network_operational_balancing_data/index.html#
Info requirements - TSO balancing actions	Yes	The evolution of the imbalance price is reported real time to the network users in their reserved area of the GME website. Imbalance price is then publicly available on the GME website: https://www.mercatoelettrico.org/It/esiti/MGS/EsitiPrezzoSbilanciamento.aspx
Info requirements - network user portfolio	No	The “base case” model is adopted. DM and NDM inputs to and off-takes of the transmission system (actually the only balancing zone) are provided. Therefore, users receive the metered value (DM) or a profile estimation (NDM) or an apportionment of them according to the share of the downstream market. An example of the file received by the shipper is attached. The NRA envisaged to review the information provision scheme, if needed to increase the system efficiency.
Trading Platform available and used by the TSO	Yes	A single Trading Platform is provided to users and to the TSO The public website is: http://www.mercatoelettrico.org/En/Default.aspx The reserved area is (you need an electronic certificate to access): https://gas.ipex.it/
STSPs defined and available on Trading Platform	Yes	Title and locational products are available from 1 October 2016. Temporal and temporal locational products are not foreseen.
TSO uses Trading Platform as first gas source	Partially	Yes, it is the main gas source for the TSO for balancing purposes. Exceptionally, the TSO can also force users' nominations of the storage for security reasons. By this, the TSO gains additional

balancing flexibility. The measure is supposed to stay in place at least for the first stage of development of the new market, in order to allow the TSO to gain enough confidence on the behaviour of market participants. The TSO is subject to a specific incentive scheme that should ensure a minimal the use of this mechanism.

When the TSO forces users' storage nominations, the difference between users' nomination and the actual quantity injected or withdrawn to/from the storage system is settled through a specific section of the gas market where the TSO and NUs (also between them) can exchange gas in storage (the MGS market). The MGS market works by means of a single daily auction (no continuous trading).

The TSO also owns its own storage, which it can use to balance the network in combination with the linepack. The TSO's use of own storage and linepack is subject to incentives too.

The NRA has published a report taking stock of the functioning of the new regime after the first six months:

<http://www.autorita.energia.it/allegati/operatori/gas/RelazioneIncidenti170515.pdf>

It emerges that the TSO traded:

- 9.5 TWh of the total 14.2 TWh of DA and WD products traded on the gas exchange (72%), and
- 4 TWh of the total 8.3 TWh of storage products traded on the gas exchange (47%)

This may indicate that the TSO's incentive design could be changed to allow a smaller role of TSO in the market.

Indeed, the NRA is consulting the market on a modified incentive scheme, which will be operational from October 2018:

<http://www.autorita.energia.it/allegati/docs/17/591-17.pdf>

TSO uses title product as primary tool	Yes	A strict merit order applies from 1 October 2016: title products first, then locational ones.
TSO uses Balancing Platform	No	A balancing platform does not exist.
TSO makes limited use of balancing services	Yes	At present the use of balancing services is foreseen by the regulations but not implemented in Italy.
TSO transparency about balancing action costs	Yes	Balancing action costs are reported on the TSO website on a monthly basis (Chapter 9, Article 3.1 of the Code). Daily transactions (volume, prices) are sent to the NRA only. http://www.snamretegas.it/en/services/balancing_regime/publications/#
Full daily cash-out implemented	Yes	No tolerances and full marginal price cash-out exposure applies.
Cash-out prices set using TP trades	Yes	The details on the cash-out price are set in Article 22 of EU Regulation and some further details are in Annex I, art. 5 of AEEGSI's deliberation 312/2016/R/gas of 16 June 2016.

		http://www.autorita.energia.it/allegati/docs/16/312-16alla.pdf
Small adjustment to deliver marginal cash-out price	Small	<p>A fixed amount of 0.108 euro/MWh applies. This represents a very small premium, averaging around 0.6% of the average gas price between October 2016 and July 2017.</p> <p>The value was designed not to unduly expose network users to unnecessary high penalties during the first period of implementation. The SA could be increased in the future in case of evidence that the current regulation doesn't provide enough incentive to users to balance their position in advance.</p>
Neutrality fully implemented	Yes	<p>Neutrality charges are calculated on a monthly basis. The methodology is approved by the NRA (Annex I, art. 8 of AEEGSI's deliberation 312/2016/R/gas of 16 June 2016):</p> <p>http://www.autorita.energia.it/allegati/docs/16/312-16alla.pdf</p> <p>Publication of the values on the TSO website have not yet started:</p> <p>http://www.snamretegas.it/en/services/balancing_regime/publications/index.html</p>
Within-day Obligations	None	-

Key elements	Coding	Explanation/discussion
Implementation date	2015	
Trade notification enabled	Yes	The VTP enables Trade Notifications. In fact, the Trading Platform has been embedded into the VTP. The TSO is operating the Trading Platform and acts on it also as a network user.
Trade notifications processed within x mins	120	The maximum legal limit is 120.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP nominations and renominations are enabled and effective.
Info requirements - system status	Partial	<p>The TSO publishes the forecast of the aggregate imbalance position of all users at the end of the gas day.</p> <p>http://www.plinovodi.si/en/for-users/network-information/imbalance-position/</p> <p>Moreover, the TSO publishes the amount of gas in the transmission system which is above the base load at the end of gas day.</p> <p>Both forecasts are provided at the beginning of the gas day and updated every hour on the website. The download of past data (including the hourly forecast updates) is possible only via a dedicated IT tool, not available to the public.</p>
Info requirements - TSO balancing actions	Yes	<p>Aggregated monthly data on quantity, costs and frequency are published.</p> <p>http://www.plinovodi.si/wp-content/uploads/2011/03/201612.pdf</p>
Info requirements - network user portfolio	Yes	<p>The network user's inputs and off-takes for the gas day are published under the network user portfolio data.</p> <p>Information available only with user log in.</p>
Trading Platform available and used by the TSO	Available and used by the TSO	The TP, operated by the TSO, started in October 2015. The number of transactions and volumes exchanged have stabilised in the course of 2016.
STSPs defined and available on Trading Platform	Yes	STSPs are defined in the TSO's Network Code.
TSO uses Trading Platform as first gas source	Yes	Improvements took place since Q4 2015 to Q1 and Q2 2016 based on fresh data provided by the NRA. In most cases, the TSO procures balancing gas via the TP.
TSO uses title product as primary tool	Yes	Improvements took place since Q4 2015 all over 2016 based on fresh data provided by the NRA. The TSO mostly uses title products.
TSO uses Balancing Platform	No	-

TSO makes limited use of balancing services	Yes	In 2016 the quantities exchanged under balancing services (yearly contract) account for less than 1.3% of the quantities traded on the TP.
TSO transparency about balancing action costs	Envisaged	The information required by article 9(4) is provided: http://www.plinovodi.si/wp-content/uploads/2011/03/201612.pdf Data on cost, frequency and quantity are presented together for balancing actions taken by the TSO on the TP and for balancing services (yearly contract). The cost for balancing services will soon be separated from those from balancing actions.
Full daily cash-out implemented	Yes	A linepack service is envisaged by the legislation, but not applied.
Cash-out prices set using TP trades	Yes	The values feeding the cash-out price calculation are derived from the relevant TP trades. The cash-out prices are closely related to daily and within-day products. http://www.plinovodi.si/wp-content/uploads/2011/02/SON.pdf (Article 111)
Small adjustment to deliver marginal cash-out price	Large	The small adjustment could range, according to the national rules, from 2.5% up to 10%. The TSO has decided to apply 10%.
Neutrality fully implemented	Envisaged	The neutrality provisions are expressed in the national network code and foresee a quarterly calculation (Art. 116). Currently, the data is published monthly, but the billing to the users is done only quarterly (art. 29.4 of NC BAL). http://www.plinovodi.si/wp-content/uploads/2011/03/201612.pdf The file is available in English from 2017: http://www.plinovodi.si/wp-content/uploads/2011/03/Aggregated_quantity_2017.pdf The Regulator has proposed an amendment in this respect, which is under preparation, and they may apply from January 2018. The amended rules will implement monthly settlement.
Within-day Obligations	None	Article 101 of the National code allows WDOs. The TSO has not requested the approval of the NRA to use them.

1.2.2 Balancing zones with minor updates

AT - Austria

Key elements	Coding	Explanation/discussion
Implementation date	2015	Implemented in 2013. AT implementation was ready by the application date 1 October 2015.
Trade notification enabled	Yes	VTP effectively enables Trade Notifications. Trading is limited since network users are obliged to be balanced.
Trade notifications processed within x mins	30	Processing will be delivered using automated electronic processing according to point 2.3 Appendix B of the CEGH GTC.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP renominations are fully enabled.
Info requirements - system status	Yes	<p>The MAM website provides hourly Market Area balance information for the two distribution regions:</p> <ul style="list-style-type: none"> • Market area East: https://ggms.aggm.at/mon/pub/unbalance.jsp • Market area Tyrol and Voralberg: https://ggms.aggm.at/mon/pub/unbalance2.jsp <p>In addition, it provides data at the level of the market area on linepack and market area balance. https://platform.aggm.at/mgm/visualisation.do?hid=262b5beb436c9024ab37cfe2e0c7725f&type=GENERAL This Market Area Balance data provided by the MAM delivers technical compliance with the alternative requirement of Reg. 715 Annex 1 3.4(5).</p> <p>TSOs provide to the MAM their useable linepack for balancing purposes on an hourly basis, which is published by the MAM at distribution and market area level: http://www.aggm.at/en/network-information/linepack-in-the-distribution-area</p>
Info requirements – TSO (MAM in Austria) balancing actions	Yes	<p>The MAM website delivers information about when and to what extent the MAM has intervened on behalf of a user. Strictly speaking these are not TSO residual actions but rather actions taken on behalf of the relevant network user. In case of an intervention by the MAM (as an entity according to Art. 4.4. BAL NC) this intervention would be published. However, up to now no MAM-intervention concerning balancing energy has been necessary. The prices (therefore the costs and revenues) of these actions do not appear on the website of the MAM, but market prices are published on the website of the VTP. The NRA claimed that this information was individual and therefore confidential. The NRA further mentioned that it monitors the balancing actions.</p>
Info requirements - network user portfolio	Yes	Par. 28 of the gas market model ordinance requires that the DAM has to update and submit the SLP forecast 3 times within the gas day and before midnight.

		<p>These forecasts are provided by the Distribution Area Manager and published by the MAM (SLP forecast), as there are no NDM customers on TS level.</p> <p>The sum of the SLP consumption forecasts (day-ahead and intraday) is published on the website of the Market Area Manager.</p> <p>https://platform.aggm.at/mgm/visualisation.do?hid=262b5beb436c9024ab37cfe2e0c7725f&type=GENERAL</p> <p>In addition, the Distribution Area Manager sends the individual SLP consumption forecasts to each balance group responsible party (BGRP). This is not public, as it contains individual confidential information.</p> <p>Austria has separate regimes for market area and distribution balancing. The distribution level operates as a second level balancing regime. Downstream customers and, therefore, NDM demand are a critical part of a properly functioning balancing regime. This creates market fragmentation. The demand on distribution level is nominated by the balance group responsible party and will be taken into account in the MAM balancing. The Agency advises that NRA to merge market area and distribution balancing.</p>
Trading Platform available and used by the TSO (MAM in Austria)	Available and used by the TSO (MAM in Austria)	The MAM as an entity according to Art. 4.4. BAL NC uses the Trading Platform. The MAM will take actions to react to any users that are notified of a nominated daily imbalance (based on entries, net traded position at VTP, exits, storage injection/withdrawal and distribution area demand), but which do not correct the imbalance themselves. The MAM transacts on the Trading Platform, on behalf of the network user, and all resulting costs and revenues are applied to the network user strictly based on the market price.
STSPs defined and available on Trading Platform	Yes	STSPs are defined in TP rules and publicly available.
TSO (MAM in Austria) uses Trading Platform as first gas source	Yes	The MAM will only use the Trading Platform. The CEGH website confirms that the within-day and next-hour markets are open 24/7.
TSO (MAM in Austria) uses title product as primary tool	Yes	The MAM uses the title product on the Trading Platform to resolve nominated imbalances on behalf of network users. This is rather different from the `residual balancing role` envisaged in the Code, where network users are incentivised to balance, but are allowed to maintain open positions. Network users are entitled to have open hourly positions up to a daily imbalance of 24 MWh at most. The MAM acts as a residual balancer for balancing energy caused by hourly structured imbalances. This will be paid from the incentive fee.
TSO (MAM in Austria) uses Balancing Platform	No	The MAM does not use an additional Balancing Platform as the Trading Platform works well in Austria and other actions than those on behalf of the network users have not been necessary up to now. If the MAM cannot maintain balancing caused by either less liquidity on the Trading Platform or the lead-time for the rebalanced gas flow would cause network instability, the MAM, at its own discretion, shall be entitled to reduce balance group imbalances by curtailment on

		entry/exit nominations. This method applies only to those balance groups which are contributing to the network instability.
TSO (MAM in Austria) makes limited use of balancing services	No	The MAM does not have any additional balancing services as the Trading Platform works well in Austria and other actions than those on behalf of the network users have not been necessary up to now. If the MAM cannot maintain balancing caused by either less liquidity on the Trading Platform or the lead-time for the rebalanced gas flow would cause network instability, the MAM, at its own discretion, shall be entitled to reduce balance group imbalances by curtailment on entry/exit nominations. This method applies only to those balance groups which are contributing to the network instability.
TSO (MAM in Austria) transparency about balancing action costs	Yes	Data is available on the MAM website to indicate the quantities of gas transacted by the MAM to resolve nominated imbalances for network users. The Trading Platform (CEGH) publishes indices that give the weighted average price for the day. This will enable an approximate cost of the actions on behalf of network users to be assessed. Possible physical imbalances are handled through linepack management or by the MAM, as he is entitled to buy/sell gas on the Trading Platform, in case certain preconditions are fulfilled. Up to now, there was no need for physical balancing actions on MAM level. There are no operational costs associated with balancing actions. If such actions would have been necessary, the MAM would have published the relevant data accordingly.
Full daily cash-out implemented	No	MAM compares nominations or declared schedules for entries and exits in the market area before the actual gas flows. The balancing regime incentivises network users to balance their portfolios ex-ante. The resulting imbalances are typically very small. Imbalances of less than 24 MWh are not cashed out, but rather carried forward to the next Gas Day.
Cash-out prices set using TP trades	No	No cash-out price is set. The exchange publishes daily prices. These are not used in the market area balancing regime. Daily imbalances are not settled, but carried forward. A separate cash-out regime exists in the distribution network balancing settlement. The Agency advises that NRA to merge market area and distribution balancing.
Small adjustment to deliver marginal cash-out price	None	As all the balancing actions are handled at CEGH at market prices, there is no need for dual prices. The MAM triggers exchange orders on behalf of and for the account of those balancing groups that surpass the daily imbalance of 24 MWh. With a price deviation of +/- 20% of the daily published reference price of CEGH the transactions are entered into the order book automatically.
Neutrality fully implemented	N/A	The neutrality principles have not been implemented as there is no need for them in the current balancing regime and the operation of the regime creates no costs or revenues associated with a `residual balancing role`. All costs and revenues associated with the MAM's

use of the Trading Platform are targeted back to those that have caused the MAM to act. Whenever network users do not have a balanced nomination position, which is not corrected in a timely manner, the MAM intervenes on behalf of the network user. Costs and volume effects of the trade are directly borne by those network users.

The WDO regime generates income from the imbalance charges. These are accumulated and used for costs of balancing energy procured by the MAM and to reduce transmission charges in future periods. Yet, these effects are very small in financial terms.

Within-day Obligations

Extensive

Portfolio based WDO applies. It is expensive for individual users if they have big short positions while the market area is also short at that moment. As Austria is a transit country and large network users are transporting physically through Austria, there is a requirement to incentivise a balanced portfolio.

The hourly imbalance charges are 0.9 EUR/MWh up to 9 EUR/MWh exceeding 400 MWh. Yet, these only apply if the system and portfolio directions are both short. It does not apply to long positions.

Thus, the regime requires that the network user has a very close look at the nomination balance throughout each gas day.

BeLux - Belgium and Luxemburg

Key elements	Coding	Explanation/ Comments
Implementation date	2015	<p>Services offered by a Hub Operator and the balancing operator is going to be integrated in one contract. Access to the VTP and trade notifications are enabled.</p> <p>Currently, Fluxys is the balancing operator in Belgium. Balansys is designated in Luxemburg. As a transitory measure, the imbalance in Luxemburg is transferred at the BE/LU border, so that the balancing actions for the whole BELUX are taken by Fluxys.</p>
Trade notification enabled	Yes	Verified with CREG in particular.
Trade notifications processed within x mins	30	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	
Info requirements - system status	Yes	<p>System level imbalance published within-day, but no initial value and hourly update of the end-of-day projection on the closing linepack. However, balancing operator in the Belux balancing system provides:</p> <ul style="list-style-type: none"> • <u>NON BINDING forecasting information</u> on the individual position of the network users and the aggregated position of the system, on an hourly basis for day D starting 15h day D-1. • BINDING information on the individual position of the network users and the aggregated position of the system, on an hourly basis every hour of the day H+20 min. <p>https://gasdata.balancing.fluxys.com/SDPBSYS/Pages/Reports/BalancingInformation.aspx</p> <p>The non-binding forecasts support the binding information received by network users.</p>
Info requirements - TSO balancing actions	Yes	The non-binding forecast and the binding hourly info clearly inform the network user on the balancing operator's interventions, during the day.
Info requirements - network user portfolio	Yes	Variant 1 applied with users having updated binding information available on an hourly basis within-day.
Trading Platform available and used by the TSO	Available and used by the TSO	ICE-Endex Platform operates as TP. As from 1 October 2016, Fluxys Belgium has switched to the Powernext – Pegas commodity exchange for all the sales and purchases of natural gas, relating to the within-day and end-of-day balancing settlements of the Belux zone. http://www.powernext.com/

STSPs defined and available on Trading Platform	Yes	The end-of-day title product (for daily balancing use) is provided on the TP.
TSO uses Trading Platform as first gas source	Yes	
TSO uses title product as primary tool	Yes	No mention of any other tools, including balancing services in the merit order file.
TSO uses Balancing Platform	No	
TSO makes limited use of balancing services	Yes	None.
TSO transparency about balancing action costs	Yes	Imbalance data are available on the data Platform. On top of these data, every network user has access to his individual information. https://gasdata.balancing.fluxys.com/transmission/ https://gasdata.balancing.fluxys.com/SDPBSYS/Pages/Reports/BalancingInformation.aspx
Full daily cash-out implemented	Yes	Corrections at the start of the day, from the previous day, influence cash-out prices.
Cash-out prices set using TP trades	Yes	Weighted Average Price is based on the trades for the day: http://www.fluxys.com/belgium/en/Services/TransmissionContract/~media/Files/Services/Transmission/TermsConditions/Version20170223/ACT_EN_Version_approved_20170223.ashx (Access Code for Transmission, attachment A, section 5.3)
Small adjustment to deliver marginal cash-out price	Small to Moderate	Set at 0% for helpers, 3% for causers. More gas will be cashed out on the causer side than on the helper side. Therefore, the weighted price of the small adjustment will be greater than 1.5%. The real effect on causers is an exposure of 3%.
Neutrality fully implemented	Yes	Neutrality is applied on an <i>ex-ante</i> basis and is reassessed once a year, with all the balancing tariff parameters. Yet, it is not fully clear to the Agency which costs/revenues go into neutrality. These costs/revenues should correspond to the balancing operator's actions, each day, to correct for net imbalance position of all network users, arising from the previous day and cash flows associated with the end-of-day imbalance cash-out of all users. Initially, the charge has been set to zero, although anticipated and actual cash flows may well lead to a non-zero charge or credit applicable in coming years. The cost related to TSO's/Balancing Operator's balancing actions are based on binding information. All TSO's/ Balancing Operator's within-day and end-of-day balancing actions are targeted to those causing the balancing actions. There is no socialization of the cost. Limited cost could arise from some small differences

between buy and sell actions from the TSO/Balancing operator. The neutrality fee has been adjusted from zero in 2015 and 2016 to 0.005 EUR/MWh in 2017.

<http://www.creg.be/sites/default/files/assets/Publications/Decisions/B656G-33NL.pdf>

<https://assets.ilr.lu/energie/Documents/ILRLU-1685561960-305.pdf>

**Within-day
Obligations**

Limited

Not invoked frequently. The regime defines a green zone (max and min market threshold). As long as the aggregated position of network users (market position) is within this range, the balancing operator will not intervene.

These market thresholds are used as indicators for the network user, informing the market that when these thresholds are reached, the balancing operator will take action during the day by buying (short) or selling (long) gas on the virtual trading point to bring the global market position back to the threshold limit.

The action taken by the balancing operator when the thresholds are reached in no way obliges the network user to take action. The network user just receives the information and it is up to him to decide how he wants to deal with it: take action or accept the costs linked to the balancing action (market price plus small adjustment) if he is one of the causers of the market position out of the green zone.

If a balancing action is taken during the day, all network users causing the market position to go out of the green zone (i.e. 'causers') are settled proportionally to their contribution to the exceeding. This procedure is to avoid cross-subsidisation.

DE - Germany: NCG and/ or Gaspool

Key elements	Coding	Explanation/discussion
Implementation date	2015 with BP	Balancing Platform ('BP'), for small volumes, still operational until 2019. Given that the Balancing Platform plays a supportive role both ENTSOG and ACER codes Germany as a non-interim measure country.
Trade notification enabled	Yes	VTP effectively enables Trade Notifications.
Trade notifications processed within x mins	30	30 minutes time for processing a transaction.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP renominations and systems processes are in place to enable day-ahead nominations and re-nominations within-day.
Info requirements - system status	Yes	The Agency's view is that Point 3.4(5) of the Annex I of the Gas Regulation (as referenced by Article 32(1)) of the Code) requests that closing linepack value is updated on an hourly basis. NCG provides for both aggregate imbalances of all network users and linepack information (as of June 2016) with an hourly frequency, which is welcome by the Agency: https://www.net-connect-germany.de/en-gb/Transparency-information/Aggregate-Imbalance-Position https://www.net-connect-germany.de/en-gb/Transparency-information/Linepack The Agency is not aware that Gaspool also provides the same level of information. Due to the use of variant 2-information model the aggregate imbalances might be considered, as sufficient level of information. http://www.gaspool.de/no_cache/en/publications/aggregated-balancing-status/
Info requirements - TSO balancing actions	Yes	Satisfying specifications from the Code - Article 32(2). NCG and GP provide good quality information in a timely manner.
Info requirements - network user portfolio	Yes	Variant 2 model is applied, with DSOs as forecasting party. Germany has implemented both Variant 2 for NDM forecast information and a system-wide WDO. Each of these approaches has its merits. The trade-offs associated with these implementations must be assessed periodically, following the evolution of local circumstances.
Trading Platform available and used by the TSO	Available and used by the TSO	Delivered.

STSPs defined and available on Trading Platform	Yes	STSPs defined and available on the TP rules.
TSO uses Trading Platform as first gas source	Yes	TSO is using TP as primary tool.
TSO uses title product as primary tool	Yes	The German balancing zones include separate high and low calorific transmission systems. There are two types of title products in Germany: i) global (non quality specific) and ii) quality-specific. MAMs use the global title products by default. If for technical reasons the balancing gas has to be delivered in the right gas quality, MAMs use quality specific title products. From assessing the 2016 data, the quality-specific title products traded on the exchange constitute a large proportion of the overall products used.
TSO uses Balancing Platform	Yes	With modest volumes.
TSO makes limited use of balancing services	Yes	Using data for 2016, balancing services are limited compared to the total balancing volumes.
TSO transparency about balancing action costs	Yes	The data should be made available to satisfy Article 9(4) on the Merit Order by NCG and Gaspool. https://www.net-connect-germany.de/de-de/Informationen/Regelenergieanbieter/Veroeffentlichungen/Externe-Regelenergie http://www.gaspool.de/en/services/balancing-group-manager/balancing-neutrality-charges/
Full daily cash-out implemented	Yes	The daily imbalances are cashed out fully at the end of the day.
Cash-out prices set using TP trades	Yes	Prices feeding the cash-out calculation are derived from title global and quality specific title products trades. The locational, system-point specific products, are not derived from the daily cash-out price.
Small adjustment to deliver marginal cash-out price	Minimal	The threshold is set at 2% of the Weighted Average Price.
Neutrality fully implemented	Yes	Neutrality pots for IDM and NDM are separated. For the period between 1 October 2016 and 1 October 2017, the neutrality charges levied by NCG are set at 0 EUR/MWh for IDM and 0.8 EUR/MWh for NDM. For the period between 1 October 2016 and 1 October 2017, the neutrality charges levied by Gaspool are set at 0.25 EUR/MWh for IDM and 0.75 EUR/MWh for NDM.

Within-day Obligations	Limited	<p>A new within day incentive system was introduced from October 2016. For IDM customers for each hour of the gas day a tolerance of 7.5% of the daily offtake quantity is allowed. Within day charges are only levied when the MAM acts on both sides of the market (global title products buy and sell) and these trades generate costs for the MAM.</p> <p>The charge is calculated as the quotient of the costs for the flexibility balancing gas weighted by quantity and the quantity of flexibility balancing gas.</p> <p>Until March 2017 the within day charge has not been levied in either of the two balancing zones.</p> <p>Within-day imbalance volumes are not set to zero, but carried forward. Not invoked frequently. It might suggest that, it doesn't generate a problem for users and successfully keeps the system within its manageable operational limits.</p>
Interim measures agreed by the NRA	Yes	<p>The NRA approved the Balancing Platform, which plays a limited role. Its use is limited until 2019.</p> <p>The MAMs submitted the first implementation report by December 2016, including a review of implemented and planned interim measures in accordance with Article 46 of the Code.</p> <p>Link to reports:</p> <p>https://www.net-connect-germany.de/Portals/2/0_16.02.2017Regelenergiebericht%20nach%20GaBi%20Gas%20202.0_2016%20Veröffentlichung_EN.pdf</p> <p>http://www.gaspool.de/fileadmin/download/netzbetreiber/bdew-vku-geode_umsetzungshilfe_netzkontoabrechnung.pdf</p>
Series of steps identified	N/A	
Evidence of first step	Taken	
Evidence or process for second step	In Progress	<p>The Balancing Platform is planned to be removed by 2019. Aggregated linepack data is published as of June 2017 in the NCG zone.</p>

DK - Denmark

Key elements	Coding	Explanation/discussion
Implementation date	2015	Implemented in two phases: 2014 and 2015.
Trade notification enabled	Yes	GTF facility enables Trade Notifications. Gas Point Nordic exchange delivers data into TSO systems from exchange based trades.
Trade notifications processed within x mins	120	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	Renomination flexibility is available.
Info requirements - system status	Yes	Expected system closing balance (ESCB) is published hourly within-day. This information also defines the manageable projected end-of-day linepack range outside of which the TSO will take a balancing action: http://online.energinet.dk/data/Pages/System-Commercial-Balance.aspx?gasday=27-07-2016 Hourly update of commercial aggregated imbalance is available. The TSO provided the Agency ex-post daily linepack data for the sake of carrying out the analyses in the present Report.
Info requirements - TSO balancing actions	No	Information is published automatically within minutes of each balancing action being taken: http://online.energinet.dk/data/Pages/System-Commercial-Balance.aspx?gasday=06-10-201
Info requirements - network user portfolio	Yes	Information relating to both intra-daily metered actual consumptions and NDM forecasts are provided five times within-day. The data is forwarded directly to network users, therefore, no link to provide.
Trading Platform available and used by the TSO	Available and used by the TSO	TSO trades on the Gas Point Nordic exchange: http://www.gaspointnordic.com/market-data
STSPs defined and available on Trading Platform	Yes	STSPs are defined. The TSO has confidence that it can balance the system using only the title product. http://www.powernext.com/#sk;tp=app;n=page;f=getPage;t=page;fp=system_name:pspot_denmark;lang=en_US;m=pegas
TSO uses Trading Platform as first gas source	Yes	
TSO uses title product as primary tool	Yes	The merit order is strictly applied, so transactions would be expected on the exchange. TSO has access to a limited storage service. This has been reduced significantly from previous years, now that confidence in the short-term market is growing.
TSO uses Balancing Platform	No	

TSO makes limited use of balancing services	Yes	The option has been retained via a small storage service provision.
TSO transparency about balancing action costs	Yes	The information is published via the balancing evaluation, which is found at: https://en.energinet.dk/Gas/Tariffs-and-Fees/Neutral-Gas-Price
Full daily cash-out implemented	Yes	Full daily cash-out implemented. Details available in the Rules for Gas Transport (Danish network code): https://en.energinet.dk/Gas/Rules (see Clauses 9 and 17.2 d) in regards to the balancing rules)
Cash-out prices set using TP trades	Yes	Until 1 Oct 2016, the WAP was based on 50% of within-day trade prices and 50% of day-ahead price on Gas Point Nordic exchange. This was based on the view that the within-day market was not liquid enough to deliver robust prices. The basket price had also the advantage of taking into account the flexibility available on a specific day. TSO's individual balancing transactions may set marginal prices. From 1 Oct 2016, when a market maker arrangement came into effect, the cash-out price is based 100% on the Gas point Nordic within-day prices: https://en.energinet.dk/Gas/Tariffs-and-Fees
Small adjustment to deliver marginal cash-out price	Minimal	Two levels are used: <ul style="list-style-type: none"> • 0.5% • And 3%. This value is only charged where the closing linepack finishes outside of the manageable "green zone". Until 30 September 2016, it was set at 2%. Its upward revision from 2% to 3% accounts for the cost of delivering flexibility from storage. <p>Statistics show that the higher level of small adjustment was applied 15 times in GY 14-15, 23 in GY 15-16, and 12 in GY 16-17 (as of July 2017).</p> <p>The small adjustment has been set so that it should be cheaper for a network user to utilise a storage service to reduce an imbalance rather than leaving imbalances to be cashed out.</p>
Neutrality fully implemented	No	Neutrality net costs are rather small, therefore, the NRA has elected to include them within the more general treatment. This means that no explicit neutrality charges are set. According to the latest available figures provided by the TSO to the NRA, the balancing system neutrality pot marked cost of 54,000 EUR in the gas year 2015/16, based on the Agency's calculations in this Report.
Within-day Obligations	No	

Key elements	Coding	Explanation/discussion
Implementation date	2016	Spain applied transitory measures until 1 October 2016.
Trade notification enabled	Yes	VTP (PVB) effectively enables Trade Notifications since November 2015. Day-ahead and within-day notifications are possible up to three hours before the end of the gas day (Circular, section 6, para 4).
Trade notifications processed within x mins	30	Notifications for within-day is -30 min and for day-ahead is 2 hours based on Circular Section 6, para 4.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	Nominations and renominations are enabled in a common procedure at all points of entry to, or exit from, the network (including to / from SSOs and LSOs).
Info requirements - system status	Yes	<p>Satisfying specifications from Article 32(1) of the Code. The process is still ongoing. The publication is effective as of 1 October 2016 on the following link:</p> <ul style="list-style-type: none"> • http://www.enagas.es/enagas/es/Gestion_Tecnica_Sistema/Mercados/Indice_de_Desequilibrio • http://www.enagas.es/enagas/en/Gestion_Tecnica_Sistema/Operacion_del_Sistema_Gasista/SeguimientoDiarioDelSistema • http://www.enagas.es/enagas/es/Gestion_Tecnica_Sistema/Operacion_del_Sistema_Gasista <p>The aggregated system imbalances and linepack value (IDQ) are published with hourly updates during the gas day.</p>
Info requirements - TSO balancing actions	Yes	<p>Satisfying specifications from Article 32(2) of the Code as of October 2016.</p> <p>Balancing actions are invoiced within one month after occurring.</p> <p>http://www.enagas.es/enagas/es/Gestion_Tecnica_Sistema/Operacion_del_Sistema_Gasista</p> <p>http://www.enagas.es/enagas/en/Gestion_Tecnica_Sistema/Mercados/Informacion_acciones_balance_Gestor_Tecnico_Sistema</p>
Info requirements - network user portfolio	Yes	<p>Satisfying specifications from Article 32(3) of the Code. Base case selected with some elements of the information provision requirements of variant 1. DSOs are obliged to provide relevant information (Circular, section 16, para 4b (3) - cumulated data provision).</p> <p>The websites are functioning and require registration.</p>
Trading Platform available and used by the TSO	Available and Used	<p>http://www.mibgas.es/mercados-de-gas/</p> <p>http://confl.mibgas.es/confluence/login.action?os_destination=%2Fhomepage.action</p>
STSPs defined and available on Trading Platform	Yes	STSPs are defined in the TP rules.

		<p>The locational products are associated with the need for the TSO to acquire at the PVB an equivalent amount of gas needed in a specific network location (Circular, Section 3, para 4b, Section 7, para 6).</p> <p>The use of locational products has not been necessary up to date.</p>
TSO uses Trading Platform as first gas source	Yes	<p>Until now, the TSO has only used the TP as a gas source (buying/selling title products) and no other gas source is envisaged:</p> <p>http://www.enagas.es/enagas/en/Gestion_Tecnica_Sistema/Mercados/Informacion_acciones_balance_Gestor_Tecnico_Sistema</p>
TSO uses title product as primary tool	Yes	<p>In accordance with the Circular 7.6, which defines a strict merit order, the Technical System Manager is required to prioritise within-day title, at the first level of the merit order. Links to legislation and technical protocols:</p> <p>http://www.boe.es/boe/dias/2016/09/30/pdfs/BOE-A-2016-8927.pdf</p> <p>http://www.enagas.es/enagas/es/Gestion_Tecnica_Sistema/Seguimiento_del_Sistema_Gasista/Protocolos_detalle</p>
TSO uses Balancing Platform	No	
TSO makes limited use of balancing services	Yes	<p>The legal framework allows the Technical System Manager to use balancing services. Until today, the TSO has not subscribed to that option. The Technical System Manager has been balancing the network buying and selling title products on the TP.</p>
TSO transparency about balancing action costs	Yes	<p>Quantities, prices, costs, and reasons related to the Technical System Manager's actions are published on the Technical System Manager webpage before invoicing, on a monthly basis (Circular, section 9, para 1). Consolidated information on balancing actions is provided to the NRA each month and will be provided as well every six months and yearly (Circular, section 9, para 2-3).</p> <p>Only registered users can access the relevant website.</p>
Full daily cash-out implemented	Yes	<p>Full daily cash-out implemented. Storage flexibility service (Circular, section 17) is an option in the national regulation, which will not apply in the first year.</p>
Cash-out prices set using TP trades	Yes	<p>Only day-ahead and intraday trades contribute to daily balancing, following ACER's recommendations.</p> <p>Prices are published by the market operator: http://www.mibgas.es/apps/reports/index.php?lang=es</p>
Small adjustment to deliver marginal cash-out price	Moderate	<p>It is set at 2.5% for a transitory period. This figure will be revised after the first year of application. The methodology defining the imbalance tariffs and small adjustment, as foreseen in Circular, section 13, para 3, was approved on 12 May 2016 and published on the CNMC webpage:</p> <p>https://www.cnmc.es/expedientes/infde04216</p>
Neutrality fully implemented	Partially	<p>The neutrality methodology is published. It ensures that the Technical System Manager passes costs and revenues arising from</p>

users' daily imbalances and the Technical System Manager's balancing actions to the network users. When the neutrality charge is negative for the TSO, it is exclusively paid by imbalanced users. When it is positive, it reduces the transport tariffs.

The neutrality charge, when negative, is invoiced separately and accompanied by the necessary information to justify and reproduce the charge calculation.

Since stakeholders who expressed their opinion on the neutrality methodology via the public consultation consider it relevant, CNMC provided the detailed rules for the division of the neutrality charge for all balancing components, and the subsequent apportionment of the corresponding sums amongst network users.

<https://www.cnmc.es/expedientes/cirde00215>

<https://www.cnmc.es/expedientes/infde04216>

Within-day Obligations

None

FR – France (North & South zone)

Key elements	Coding	Explanation/ discussions
Implementation date	2015	
Trade notification enabled	Yes	Powernext records trades at the two VTPs, PEG Nord and TRS. No restrictions applied.
Trade notifications processed within x mins	30	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	
Info requirements - system status	Yes	<p>Currently, the end-of day closing linepack is published per TSO and zone, but not at the level of the area (until 2018 – merger of areas TRS and PEG Nord).</p> <p>PEG Nord: http://www.smart.grtgaz.com/en/SECprojete/Nord</p> <p>PEG South: http://www.smart.grtgaz.com/en/SECprojete/Sud</p> <p>TIGF: https://tetra.tigf.fr/SBT/public/StockGazConduite.do?action=listePrev</p> <p>GRTgaz provides the end-of-day imbalance for the TRS zone: http://www.smart.grtgaz.com/en/position_desequilibre_fin_journee/TRS</p>
Info requirements - TSO balancing actions	Yes	<p>Currently, the balancing actions are published per TSO and per zone, and not at the level of the area (until 2018 – merger of areas TRS and PEG Nord). To get TRS information, one has to aggregate TIGF and GRTgaz information.</p> <p>GRTgaz monthly publication: http://www.smart.grtgaz.com/en/prix_bourse</p> <p>TIGF public information: https://tetra.tigf.fr/SBT/public/Equilibrage.do?action=listeTransaction</p>
Info requirements - network user portfolio	Yes	<p>GRTgaz: available on www.smart.grtgaz.com with log-in.</p> <p>TIGF: available on https://tetra.tigf.fr with log-in.</p> <p>For TIFG, the imbalance notice per user is described here: https://www.tigf.fr/fileadmin/Nos_publications/Publications_transport/Balancing_notice_TIGF.pdf</p>
Trading Platform available and used by the TSO	Available and used by the TSO Pegas	<p>The Trading Platform is Powernext, a Pegas member. Dedicated sections of Pegas in Powernext, are Pegas Spot PEG Nord and PEGAS Spot TRS:</p> <p>http://www.powernext.com/#sk;tp=app;n=page;f=getPage;t=page;fp=system_name:PGS_Contract_Specifications;lang=en_US;m=pegas</p>

STSPs defined and available on Trading Platform	Yes	<p>http://www.powernext.com/#sk;tp=app;n=page;f=getPage;t=page;fp=system_name:PGS_Contract_Specifications;lang=en_US;m=pegas</p> <p>GRTgaz uses a simple locational product on the Trading Platform:</p> <p>http://www.grtgaz.com/fileadmin/clients/fournisseurs/documents/en/Locational-reminder.pdf</p> <p>http://www.powernext.com/f/docs/cdp/20151116_PEGAS_Launch_Locational_Products.pdf</p>
TSO uses Trading Platform as first gas source	Yes	
TSO uses title product as primary tool	Yes	
TSO uses Balancing Platform	No	
TSO makes limited use of balancing services	Yes	NRA commented that gas procured on the market and linepack are sufficient for both GRTgaz and TIGF.
TSO transparency about balancing action costs	Yes	<p>Currently, the information is published per TSO and not at the level of the balancing area (until 2018 – merger of the areas TRS and PEG Nord). Aggregated information would be more user-friendly.</p> <p>TIGF monthly publication:</p> <p>https://www.tigf.fr/en/our-publications/transport-publications/imbalance-settlement.html</p> <p>https://tetra.tigf.fr/SBT/public/Equilibrage.do?action=listeReglementDesequilibres</p> <p>GRTgaz monthly publication:</p> <p>http://www.grtgaz.com/acces-direct/clients/fournisseur-trader/equilibrage.html</p> <p>http://www.smart.grtgaz.com/en/soldes_desequilibres</p> <p>http://www.smart.grtgaz.com/en/prix_bourse</p>
Full daily cash-out implemented	Yes	<p>http://www.cre.fr/en/documents/deliberations/approval/balancing-rules2</p> <p>The linepack service may undermine some of the incentive properties of a full daily cash-out at marginal price, since the service offers additional flexibility by shielding the respective gas volumes from the cash-out at marginal price.</p> <p>See the following link for GRTgaz :</p> <p>https://www.grtgaz.com/fileadmin/clients/fournisseurs/documents/en/Find-out-more-about-Balancing-Rules-and-Alizes-service-on-October-1-2015.pdf</p> <p>For TIGF:</p> <p>https://www.tigf.fr/nos-offres/transport/contrat-de-transport/le-service-dequilibrage-transport-set.html</p> <p>Clearing of the flexibility service occurs in M+2.</p>

Cash-out prices set using TP trades	Yes	
Small adjustment to deliver marginal cash-out price	Moderate	Set at 2.5%. But the linepack service effectively sets the adjustment at 0 for linepack service holders, when the TSO is not an active balancer on the day.
Neutrality fully implemented	Yes	Each TSO manages its physical balancing and takes balancing actions accordingly.
Within-day Obligations	None	

HU - Hungary

Key elements	Coding	Explanation/discussion
Implementation date	2015	With a few obligations for FGSZ to be implemented by 2016.
Trade notification enabled	Yes	VTP effectively enables Trade Notifications.
Trade notifications processed within x mins	120	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	Renomination timelines and frequency are respected.
Info requirements - system status	Yes	<p>Satisfying specifications from Article 32(1) of the Code:</p> <p>https://fgsz.hu/en-gb/partnereinknek/adatszolgaltatas-a-715-2009-ek-rendelet-1-melleklet-3-fejezete-alapjan#/</p> <p>Opening linepack and end-of-day linepack forecast is provided and updated on an hourly basis:</p> <p>http://tsodata.fgsz.hu/fgsz_pipeline</p>
Info requirements - TSO balancing actions	Envisaged (by end of 2017)	<p>Partly satisfying the specifications from Article 32(2) of the Code (prices and volumes are provided, but volumes do not contain a proper breakdown for the TSO balancing actions):</p> <p>http://tsodata.fgsz.hu/fgszszamoloar</p> <p>https://fgsz.hu/hu-hu/partnereinknek/kapacitaskereskedelmi-informaciok/kereskedesi-platform-kp/kp-piaci-jelentesek - contains aggregated data of TSO and network users purchases (Kereskedelmi ugyletek sheet); network users imbalances from both platforms (Egyensulyozo ugyletek). The TSO will separate its own deals and report the TSO balancing action volumes in a separate sheet by December 2017.</p> <p>The national Network Code contains additional rules for the publication of balancing information. In parallel the TSO is developing a new information platform to facilitate information provisions for the different Network Codes. The new information platform is planned to start operations by October 2018.</p>
Info requirements - network user portfolio	Yes	<p>Satisfying specifications from Article 32(3) of the Code.</p> <p>DSOs are the forecasting parties. Hungary opted for variant 1. DSOs provide two updates during the day. The NDM and IDM consumption profiles are collected and the methodology used for apportionment is under refinement, so that hourly updates will become possible, starting with the IDM data. The IDM hourly data will be provided to traders by the end of the year. DSO data quality is constantly monitored by the regulator.</p> <p>https://fgsz.hu/en-gb/partnereinknek/adatszolgaltatas-a-715-2009-ek-rendelet-1-melleklet-3-fejezete-alapjan#/</p> <p>Network user's data is available to them via dedicated secured area of the TSO's website.</p>

Trading Platform available and used by the TSO	Available and used by the TSO	<p>The existence of two Trading Platforms, one on the exchange (CEEGEX): https://www.ceegex.hu/en/Pages/default.aspx</p> <p>and the other one operated by the TSO: https://fgsz.hu/hu-hu/partnereinknek/informatikai-platformmal-kapcsolatos-informaciok/informatikai-platform-elerhetosege</p> <p>reduces liquidity and ease of trading.</p> <p>The TSO TP will be legally unbundled as of 1 October 2017. The Tariff fees will no longer cover the platform registration fees to the TSO platform and the level playing field across the two platforms is corrected. Both platforms will continue to function in the future.</p>
STSPs defined and available on Trading Platform	Yes	<p>Both trading platforms have STSPs in line with BAL NC.</p> <p>For the TSO's TP, detailed rules and the following rules and other information on products, as well as reporting, are published: https://fgsz.hu/en-gb/partnereinknek/kapacitaskereskedelmi-informaciok/kereskedesi-platform-kp#/ https://fgsz.hu/en-gb/Documents/Trading%20Platform%20Operational%20Rules%2001%2002%202016.pdf</p> <p>Similar information is available for the exchange-based TP: https://www.ceegex.hu/en/trading/Pages/trading03.aspx https://www.ceegex.hu/en/kommunikacio/dokumentumok/Pages/rules.aspx</p>
TSO uses Trading Platform as first gas source	Yes	The TSO uses both trading platforms.
TSO uses title product as primary tool	Yes	<p>Title products are available on both Trading Platforms.</p> <p>Registration fees of CEEGEX are reasonable, but the clearing fees may be of concern for small network users.</p> <p>The registration fees at the legally unbundled Platform run by the TSO are separated from tariffs as of 1 October 2017. The TSO uses both platforms for balancing purposes and shall opt for the cheapest trade when taking actions. In the period of January-July 2017 the TSO used less than 1% (0.13%) locational trades in the period of January-July 2017.</p>
TSO uses Balancing Platform	No	The Balancing Platform ceased to exist by October 2016.
TSO makes limited use of balancing services	No	
TSO transparency about balancing action costs	Envisaged	<p>The data on volumes, beyond prices, should be made available to satisfy Article 9(4) on the Merit Order. http://tsodata.fgsz.hu/en/fgszszamoloar</p>

Full daily cash-out implemented	Yes	<p>The rules for daily cash out are the same for all network users that are registered on either of the two trading platforms, but additional charges apply to users that are not registered on either TP, as follows.</p> <p>Network users that are not registered pay a penalty of 0.1642 HUF/kW if their imbalances are above a tolerance level of -/+2 %. These users are also subject to marginal prices. The penalty aims to incentivise users to register on one of the trading platforms available.</p>
Cash-out prices set using TP trades	Yes	<p>Aligned with the rules provided in Article 22 of the Code.</p> <p>Relevant rules are provided in chapter 7.2.1 of the Rules of the Trading Platform. The cash-out prices include title products only. The products on both platforms are taken into account when calculating the cash-out price.</p> <p>For the TSO's TP, detailed rules and the following rules and other information on products, as well as reporting, are published:</p> <p>https://fgsz.hu/en-gb/partnereinknek/kapacitaskereskedelmi-informaciok/kereskedesi-platform-kp#/</p> <p>https://fgsz.hu/en-gb/Documents/Trading%20Platform%20Operational%20Rules%2001%2002%202016.pdf</p> <p>Similar information is available for the exchange-based TP:</p> <p>https://www.ceegex.hu/en/trading/Pages/trading03.aspx</p> <p>https://www.ceegex.hu/en/kommunikacio/dokumentumok/Pages/rules.aspx</p>
Small adjustment to deliver marginal cash-out price	minimal	<p>As of 1 April 2017 the adjustment was moved to +/- 1%, as first step. The previous initial level of the small adjustment was set to 0.</p>
Neutrality fully implemented	No	<p>Both the methodology (Hungarian Gas Code, pages 179 - 183):</p> <p>https://fgsz.hu/hu-hu/Documents/ukasz/uKSZ_torzs_hat%c3%a1lyos_2016_10_01-t%c5%91l_4501-2016_MEKH_hat.pdf</p> <p>and the actual costs:</p> <p>https://fgsz.hu/hu-hu/partnereinknek/kapacitaskereskedelmi-informaciok/kereskedesi-platform-kp/az-ertesitesi-kulonbozet-es-az-egyensulyozasi-intezkedesekkel-kapcsolatosan-felmerult-koltsegek-elszamolasa are available.</p> <p>The Neutrality is targeted to those causing the imbalances and not to the throughput (Article 30.3 of NC BAL).</p>
Within-day Obligations	None	-

NL - The Netherlands

Key elements	Coding	Explanation/ discussion
Implementation date	2015	The Netherlands claimed Code compliance well before Oct 2015 deadline applied.
Trade notification enabled	Yes	Some terminology issues may be relevant - website indicates that trades may need to be reflected in "programmes" before 22:00, but that trades can be completed later than this.
Trade notifications processed within x mins	30	Timely confirmation essential, given the nature of the within-day regime.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	
Info requirements - system status	Partial	<p>System Balance Signal are near real time, available for the next hour, but projections concerning the amount of gas in the transmission system by the end-of-day are not available.</p> <p>System Balance Signal (SBS) is the aggregation of the Portfolio Imbalance Signals (POSS) of all network users active in the network. The SBS shows the prediction for the coming hour (the prognosis value). In addition, it shows the total sum of the helpers, the total sum of the causers and the buffer zones.</p> <p>GTS uses near real time allocation, so that off-takes are immediately accounted for in users' POSS (every five minutes). In addition, given that actions are taken within-day, there are no predictions for the end-of-the-day.</p> <p>https://www.gasunietransportservices.nl/en/shippers/balancing-regime/sbs-and-pos</p> <p>https://www.gasunietransportservices.nl/en/shippers/terms-and-conditions/nc-implementation</p>
Info requirements - TSO balancing actions	Yes	https://www.gasunietransportservices.nl/en/shippers/balancing-regime/balancing-actions/summary
Info requirements - network user portfolio	Yes	Variant 1 delivered, but with far greater than mandated frequency of info provision, offering near real time projections in the hour.
Trading Platform available and used by the TSO	Available and used by the TSO	https://www.theice.com/products/31435802/Dutch-TTF-Gas-Spot/specs
STSPs defined and available on Trading Platform	Yes	Within-day title products are used.

TSO uses Trading Platform as first gas source	Yes	As shown in previous Report
TSO uses title product as primary tool	Yes	No locational products apparent. Next-hour temporal product used as part of WDOs regime to deliver system integrity.
TSO uses Balancing Platform	No	Balancing Platform not needed.
TSO makes limited use of balancing services	Yes	No balancing services are applied.
TSO transparency about balancing action costs	Yes	https://www.gasunie transportservices.nl/en/transparency/reports/physical-gas-balance https://www.gasunie transportservices.nl/en/transparency/transparency-requirements
Full daily cash-out implemented	No	Daily imbalances are not cashed out, but rather a "linepack service charge", currently 0.4% of the weighted average traded price is applied to "end of day imbalances". ACM is of the opinion that the current implementation of the linepack flexibility service, together with the daily cash-out is compliant to the Code. It has been consulted with market parties and found to be cost-efficient. (https://www.gasunie transportservices.nl/en/shippers/terms-and-conditions/nc-implementation) The Agency's next Report may take a closer look at the regime applied, also based on the calculation WDO volumes x WDO prices / end-of-day volumes x linepack service charges, as ACM suggested.
Cash-out prices set using TP trades	Partial	There is no daily cash-out, although TP trades do feed into the charge for linepack service usage. The setting of the cash-out price is critical for the good functioning of the balancing regime. https://www.gasunie transportservices.nl/en/shippers/balancing-regime https://www.gasunie transportservices.nl/en/shippers/balancing-regime/linepack-flexibility-service
Small adjustment to deliver marginal cash-out price	Minimal	No adjustment defined, given that the daily imbalance quantities are set to zero (see Article 21.2) by the linepack service. The linepack service charge has a very similar effect to the small adjustment applied in a full daily cash-out regime. The linepack service charge is small compared to other countries. The use of linepack service charges as a proxy for small adjustments is debatable. The rationale behind the charge raises concerns. Its value is an important component of the daily cash-out price as it must give a clear signal to the market.
Neutrality fully implemented	Partial	No neutrality concept, as defined in Balancing Code. The approach in the Netherlands effectively targets costs of within-day balancing actions to those causing the balancing actions. No after the day actions are taken,

so no costs are generated for this. This could be considered as an alternative to neutrality.

Additionally, GTS uses a linepack flexibility fee to incentivise users' balancing. Regardless of whether the network user is long or short at the end of each gas day, the linepack service charge is paid for the "imbalance volumes" times the linepack service unit rate. GTS does not publish the cumulated charges and volumes of imbalances. In the end, the total yearly revenues from the LFS charge are included in the tariff calculation for the balancing tariff for Year-2. The balancing tariffs are special tariffs, those are not recognised in the Code.

<http://wetten.overheid.nl/BWBR0037950/2017-08-12#Hoofdstuk4>

**Within-day
Obligations**

Limited

The regime in the Netherlands mixes a within-day regime with the daily balancing concept. An effect similar to the daily regime could be delivered with different charges applicable to the linepack service.

The regime provides within-day discipline (linepack zone of +/- 30 GWh (3 mcm). This may curtail network users from running within-day imbalances. This will be explored in the Agency's next Report, based on Article 26.2(c) and (f).

PL - Poland (high calorific zone)

Key elements	Coding	Explanation/discussion
Implementation date	Interim	A detailed regime has been developed according the requirements of the NC BAL.
Trade notification enabled	Yes	The TSO has enabled a Trade Notification facility. Network users can submit day-ahead and within-day trades. This is independent from the interface associated with the TGE Platform (see opening hours of TGE below).
Trade notifications processed within x mins	120	The TSO uses a tool similar to that used for physical nomination/renomination approval. Therefore, the processing time is 120 minutes.
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	IP renominations and systems processes are in place, for both bundled and unbundled capacities.
Info requirements - system status	Yes	The TSO publishes the aggregate imbalance position of all users: http://en.gaz-system.pl/strefa-klienta/system-przesylowy/tsotransparencytemplate/ The aggregated imbalances are updated hourly.
Info requirements - TSO balancing actions	Yes	The NRA confirms that, every month, the relevant costs and revenues of the activities connected with balancing are published. The TSO, NRA, and market players should explore whether any information beyond the minimum requirements specified in the Code is needed to assist market functioning: http://en.gaz-system.pl/strefa-klienta/taryfa/bilansowanie/mechanizm-zapewnienia-neutralnosci-kosztowej/ http://en.gaz-system.pl/customer-zone/tariff/balancing/balancing-actions-nc-bal/ http://en.gaz-system.pl/customer-zone/transmission/balancing-services-market/system-services-performed/
Info requirements - network user portfolio	Yes	The DSO Polska Spółka Gazownictwa sp. z.o.o. is responsible for NDM forecasts from 1 September 2016. Polska Spółka Gazownictwa sp. z.o.o. published the document: "Methodology of forecasting of NDM off takes by network users". It is available in Polish only: http://www.psgaz.pl/prognozowanie-ilosci-odbieranych-przez-zud
Trading Platform available and used by the TSO	Available and used by the TSO	The TP is used as primary tool, with most usage occurring for within-day products, but day-ahead is also available. The within-day market on the TGE Trading Platform opens at 8:00 am and closes at 3:30 pm.
STSPs defined and available on Trading Platform	Yes	Limited title STSPs are defined and published. Locational products are available on the TSO's Balancing Platform only.

		<p>A question is whether the locational products could be placed on the exchange, instead of on the Balancing Platform.</p> <p>URE informed that the locational products could be available on the exchange, but the decision to offer such possibility belongs to the Polish exchange (TGE). At the moment, GAZ-SYSTEM supports the idea to make locational products available on the exchange. The discussion with the Polish Exchange (TGE) is ongoing. No binding declarations have been made so far.</p> <p>The option to extend the opening hours of the gas exchange until 10:00 pm is also discussed.</p>
TSO uses Trading Platform as first gas source	Yes	The TSO uses the TP predominantly. The Trading Platform (TGE) would benefit from the possibility to also offer locational products. In that case, the Trading Platform could be used by the TSO to replace the Balancing Platform.
TSO uses title product as primary tool	Yes	The TSO uses the title market predominantly.
TSO uses Balancing Platform	Yes	The Balancing Platform provides a backup tool for the TSO. It can be used out of Trading Platform hours, or when locational actions are needed, or where insufficient liquidity exists at TGE.
TSO makes limited use of balancing services	Yes	The TSO uses title products predominantly. The Agency understands that some specific balancing services have been contracted at the border between Poland and the Czech Republic. The TSO contracted Balancing Services at the IP Branice.
TSO transparency about balancing action costs	Yes	<p>The publications are available on a monthly and yearly basis:</p> <p>http://en.gaz-system.pl/customer-zone/tariff/balancing/balancing-actions-nc-bal/</p> <p>http://en.gaz-system.pl/strefa-klienta/taryfa/bilansowanie/mechanizm-zapewnienia-neutralnosci-kosztowej/</p>
Full daily cash-out implemented	No	A tolerance of a 5% applies for the GY 2016/17.
Cash-out prices set using TP trades	Yes	Only prices from the within-day market trades are feeding in the cash-out price formula.
Small adjustment to deliver marginal cash-out price	Large	The small adjustment represents 10% of the Weighted Average Price, which is based on the within-day exchange price index.
Neutrality fully implemented	Yes	<p>Neutrality costs and redistributions are calculated based on a methodology that is compliant with the Code. Neutrality is separated from transmission charges.</p> <p>Invoices contain:</p> <ol style="list-style-type: none"> 1. the neutrality rate applied in a given settlement period, 2. the total volume of gaseous fuel, transported by the network user in the settlement period.

		<p>Charges for 2015/16 have been set on a forward looking basis (and set to zero).</p> <p>The cash flows will be taken into account in setting next year's neutrality charges. The neutrality charges for 2016/2017 is set on a monthly basis, with monthly neutrality price setting.</p>
Within-day Obligations	None	
Interim measures agreed by the NRA	Yes	<p>The NRA assessed whether:</p> <ol style="list-style-type: none"> 1. liquidity (either observed or envisaged) has been inadequate, and 2. more time is needed for an orderly transition. <p>The NRA also provided the conditions under which the interim measures will be withdrawn (e.g. churn rate comparable with adjacent market, availability of the exchange for 22 hours, locational products available on the exchange).</p>
Series of steps identified	Yes	<p>Balancing Platform and tolerances are reviewed on a yearly basis. Information will be published to satisfy minimum requirements specified in the Code.</p>
Evidence of first step	Taken	<p>First steps were taken.</p> <p>The NRA plans to evaluate the progress on a yearly basis.</p>
Evidence or process for second step	In Progress	<p>The TSO consulted the updated Interim Measure Report, published in July 2016.</p> <p>At this point the tolerance levels of 5% were set, at the request of the network users and no material steps were taken to remove the interim measures.</p> <p>The TSO has recently consulted its newly updated Interim Measure Report (June 2017):</p> <p>http://en.gaz-system.pl/press-centre/news/information-for-the-media/arttykul/202509/</p> <p>The NRA has approved the updated Interim Measure Report on 29 September 2017.</p> <p>The Report shows that short-term liquidity (and churn ratio) and the number of players in the market increased. The short-term churn ratio is now comparable to, or even higher than, the ones in the neighbouring markets.</p> <p>Yet the two remaining criteria for the removal of interim measures (product availability and relevance) have not been fulfilled. The Report proposes to:</p> <ul style="list-style-type: none"> • reduce tolerance levels to 2,5% from 1 April 2018; • use of a Balancing Platform (only for locational products at non-EU IPs).

UK-GB - Great Britain

Key elements	Coding	Explanation/ discussion
Implementation date	2015	Major design elements were adopted in 2002.
Trade notification enabled	Yes	
Trade notifications processed within x mins	30	
IP renominations enabled (choice: renomination flexibility at the broader set of points)	Yes	
Info requirements - system status	Yes	Projected Closing Linepack (PCLP) is made available via "Prevailing View". It is updated at least hourly: http://marketinformation.natgrid.co.uk/gas/frmPrevailingView.aspx
Info requirements - TSO balancing actions	Yes	Detailed information available via "Report Explorer" facility: http://www2.nationalgrid.com/uk/industry-information/gas-transmission-operational-data/report-explorer/ (In Report Explorer: Reports > Energy – Daily Reports > After Day > Daily Balance Report (NORD01) > Daily Operation Information (NORD01c))
Info requirements - network user portfolio	Yes	Information provision exceeds Code requirements with more than 2 NDM forecasts being provided: http://www2.nationalgrid.com/uk/industry-information/gas-transmission-operational-data/data-item-explorer/ (In Data Item Explorer: Demand>LDZ Forecast or Demand>LDZ Actual>NDM) In terms of NDM forecasting, National Grid publish these forecasts as part of their demand forecasts at an LDZ level at D-1 at 12:00, 14:00, 18:00 and 01:00. Then on the day they provide the first update at 12:00, then again at 15:00, 18:00, 21:30 and 01:00 which is then – this is broken down into DM and NDM volumes.
Trading Platform available and used by the TSO	Available and used by the TSO	On-the-day Commodity Market (OCM) Trading Platform as provided by ICE-Endex is used as National Grid's primary balancing tool.
STSPs defined and available on Trading Platform	Yes	
TSO uses Trading Platform as first gas source	Yes	

TSO uses title product as primary tool	Yes	National Grid has evolved its use of the OCM. It places great emphasis on the use of title product. Locational products have not been used for several years.
TSO uses Balancing Platform	No	Balancing Platform was used prior to October 1999. It was then replaced with the OCM (Trading Platform).
TSO makes limited use of balancing services	Yes	National Grid has some limited gas resources available in emergency situations. They are used to manage an orderly rundown of the system.
TSO transparency about balancing action costs	Yes	<p>Provided via after the event reporting:</p> <p>http://www2.nationalgrid.com/uk/industry-information/gas-transmission-operational-data/report-explorer/</p> <p>(In Report Explorer: Reports > Energy – Daily Reports > After Day > Daily Balance Report (NORD01) > Daily Operation Information (NORD01c))</p>
Full daily cash-out implemented	Yes	
Cash-out prices set using TP trades	Yes	The cash-out price determination is based upon weighted average price (WAP), small adjustment and residual balancer's transacted prices. WAP is derived from all OCM title transactions for the day.
Small adjustment to deliver marginal cash-out prices	Moderate	It is derived each year via an updated methodology. It is currently set at 1.1 p/therm. This is just below 3% of current prices, observed on the balancing market.
Neutrality fully implemented	Yes	Neutrality generates a modest cash surplus for redistribution back to network users, in proportion to their system throughput. The level of credit is slightly higher than in earlier years. It may suggest that the small adjustment is slightly higher than it might need to be.
Within-day Obligations	None	<p>Effectively none.</p> <p>There are some ramp rate restrictions at large direct connected loads. They are implemented to protect installed equipment. They do not restrict the commercial freedom of users beyond physical requirements.</p>



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