USER MANUAL "OPERATIONAL DATA"

This manual is a support to information of data indicated in "PUBBLICATION OF INFORMATIONS AS IN ARTICLES 6.4 AND 6.5 OF THE RESOLUTION NO. 137/02 AND IN ARTICLE 11.2 OF TIB" as per Network Code, Chapter 9, paragraph 1.

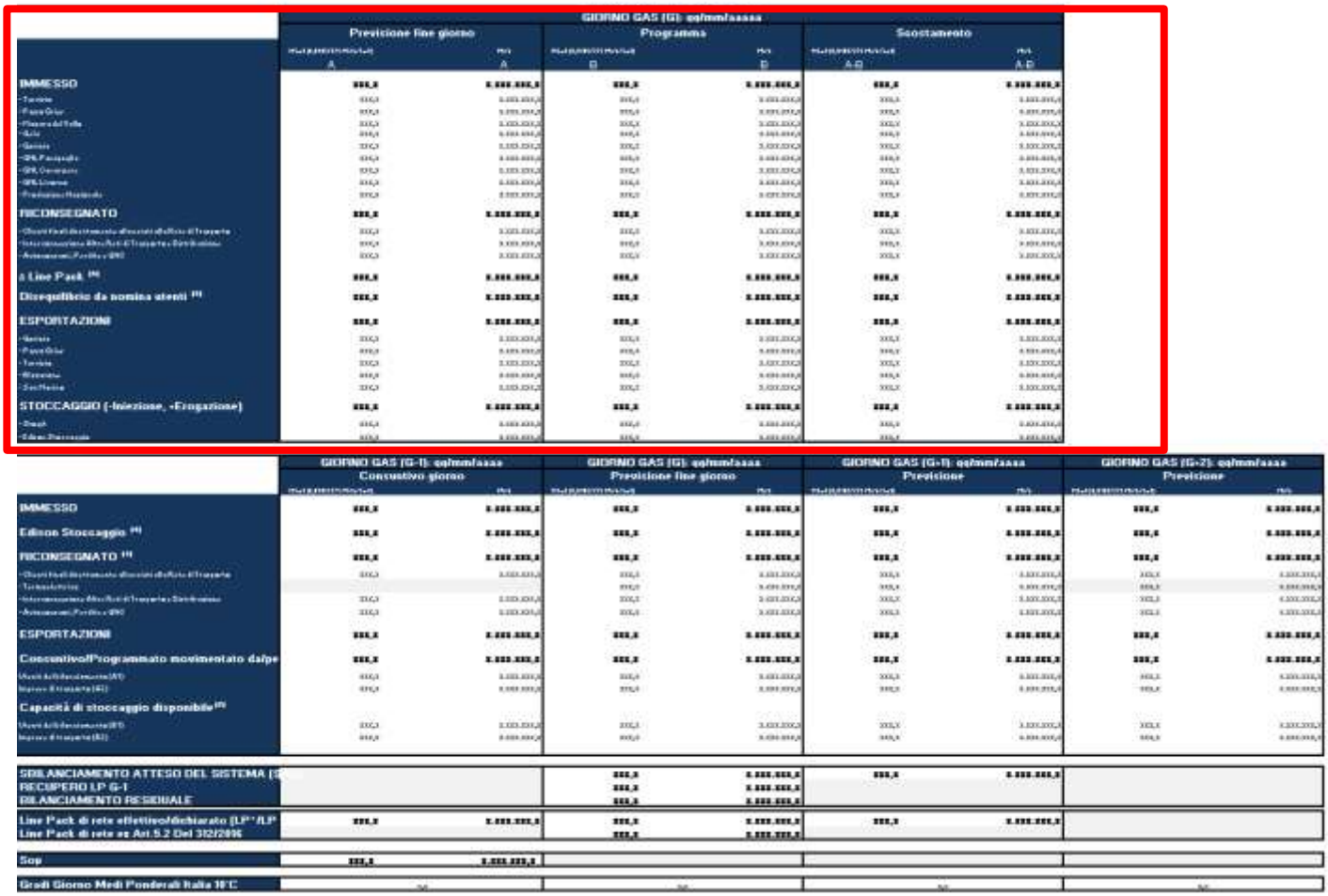
Technical specifications Area "Estimated expected value at the end of Gas-day (D)"

The format of data is:

- rounded off to 7 decimals (only 1 visible)
- comma (',') is the decimal separator
- "n.a." = not applicable
- "n.d." = not available
- "" blank = Null

Detail area of Gas-day (D)

PUBBLICAZIONE DELLE INFORMAZIONI INDIVIDUATE AGLI ARTICOLI 6.4 E 6.5 DELLA DELIBERAZIONE N. 137/02, ALL'ARTICOLO 7quinquies.2 DELLA DELIBERAZIONE ARG/gas 45/11, E ALL'ARTICOLO 11.2 DEL TIB
AGGIORNAMENTO ore: 13:45



	GIORNO GAS (G): gg/mm/aaaa					
	Previsione fine giorno		Programma		Sostamento	
		(M)		(M)		(M)
	A	A	B	B	A-B	A-B
IMMESSO	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
RICONSEGNATO	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
Line Pack [M]	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
Disequilibrio da nomina utenti [M]	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
ESPORTAZIONI	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
STOCCAGGIO (-Iniezione, +Erogazione)	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x

	GIORNO GAS (G-1): gg/mm/aaaa Consuntivo giorno		GIORNO GAS (G): gg/mm/aaaa Previsione fine giorno		GIORNO GAS (G+1): gg/mm/aaaa Previsione		GIORNO GAS (G+2): gg/mm/aaaa Previsione	
		(M)		(M)		(M)		(M)
IMMESSO	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
Edison Stoccaggio [M]	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
RICONSEGNATO [M]	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
ESPORTAZIONI	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
Consuntivo/Programmato movimentato dalle	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x
Capacità di stoccaggio disponibile [M]								
SBILANCIAMENTO ATTESO DEL SISTEMA (S			,x	x.xxx.xxx,x	,x	x.xxx.xxx,x		
RECUPERO LP G-1			,x	x.xxx.xxx,x				
BILANCIAMENTO REGIONALE			,x	x.xxx.xxx,x				
Line Pack di rete effettivo/dichiarato (LP*/LP	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x	,x	x.xxx.xxx,x		
Line Pack di rete ex Art.5.2 Del 312/2006			,x	x.xxx.xxx,x				
Sop	,x	x.xxx.xxx,x						
Gradi Giorno Medi Ponderati Italia 15°C								

Pursuant to Article 6, comma 6.4 and 6.5, of the Resolution no. 137/02, forecasts, bookings and the difference between the quantities in delivery or redelivery at

a) Entry Points and Exit Points interconnected with foreign import pipelines;
b) Entry Points interconnected with regasification terminals;
c) Entry Points and Exit Points interconnected with storage hubs;
d) the sum of Entry Points interconnected with national productions;
e) the interconnection complex with other transmission networks and Redelivery Points interconnected with distribution networks,
f) the Redelivery complex which supplies the Final Customer directly connected to the transmission network of Snam Rete Gas;

The information referred to subparagraphs a), b), d), e) and f) do not consider the amounts paid to cover Fuel consumption, Losses and unaccounted-for gas: such information are combined in the item "Losses, Fuel consumption and unaccounted for gas".

The item "Losses, Fuel consumption and unaccounted for gas" is determined considering:

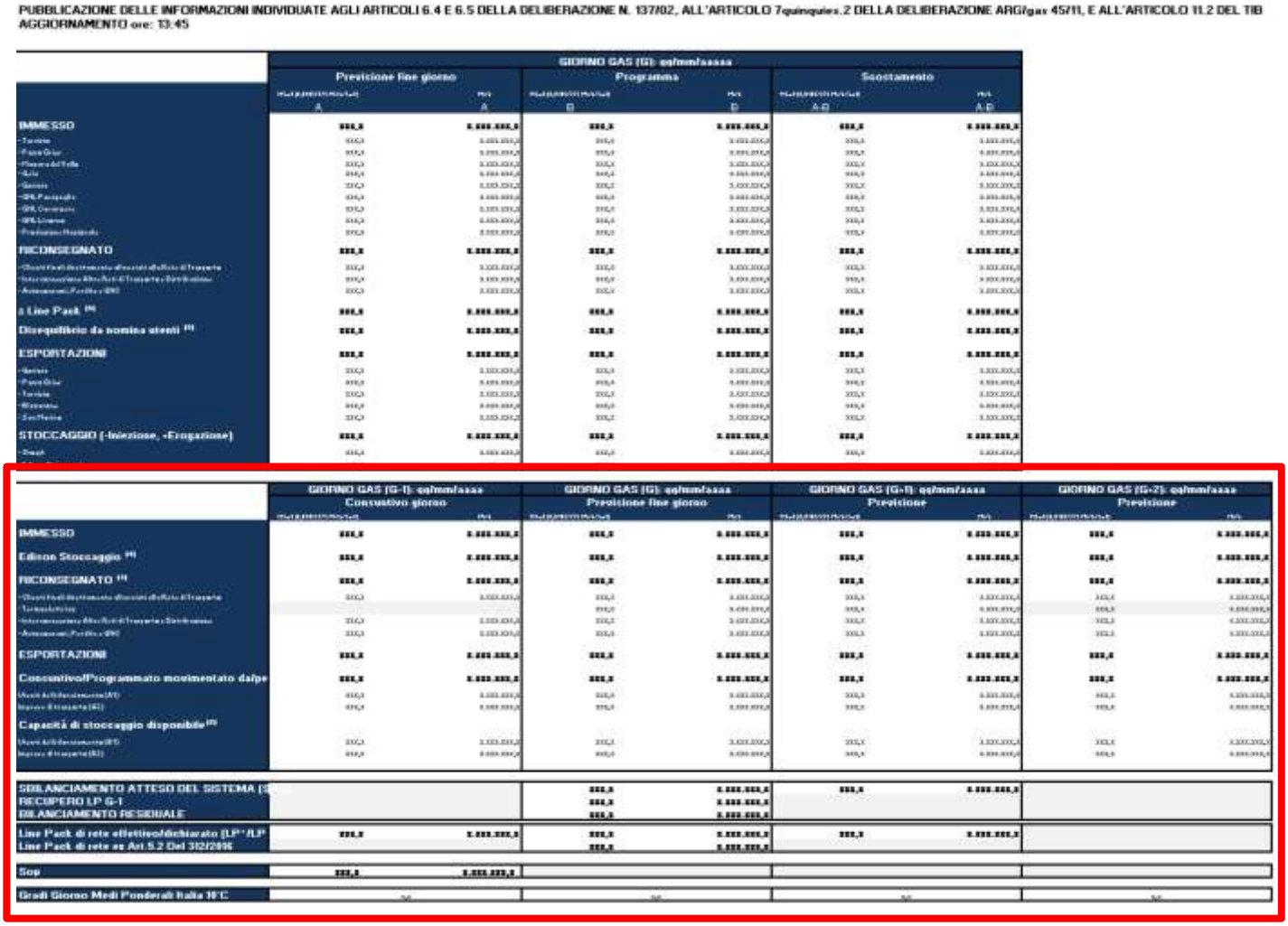
- the expected System status: determined on the basis of the quantities expected in the intake, in pipe and demand; updated every hour;
- bookings made by all subjects which contribute to the system balancing according to the last available transportation program formulated

The item "Δ Line Pack" is determined considering bookings made by all subjects which contribute to the system balancing according to the last available transportation program formulated.

Moreover, “Shippers imbalance from nominations” is provided; it is calculated as total deviation between bookings at delivery points and the bookings at redelivery points made by all subjects which contribute to the system balancing. The Shippers imbalance from nominations is no calculated in section “End of day forecast D” because it contributes to the determination of forecast of the Storage Stogit.

$$Shippers\ imbalance\ from\ nominations = Intake - Demand - Losses, Fuel\ consumption\ and\ unaccounted\ for\ gas - Export + Storage\ Systems$$

Information area


PUBBLICAZIONE DELLE INFORMAZIONI INDIVIDUATE AGLI ARTICOLI 6.4 E 6.5 DELLA DELIBERAZIONE N. 137/02, ALL'ARTICOLO 7quinquies.2 DELLA DELIBERAZIONE ARG/gas 45/11, E ALL'ARTICOLO 11.2 DEL TIB
AGGIORNAMENTO ore: 13:45

	GIORNO GAS (G): qq/mm/aaaa					
	Previsione fine giorno		Programma		Scostamento	
	A		B		A-B	
IMMESSO						
RICONSEGNATO						
Δ Line Pack [4]						
Disequilibrio da nomina utenti [5]						
ESPORTAZIONE						
STOCCAGGIO (-Iniezione, +Erogazione)						

	GIORNO GAS (G-1): qq/mm/aaaa Consuntivo giorno		GIORNO GAS (G): qq/mm/aaaa Previsione fine giorno		GIORNO GAS (G+1): qq/mm/aaaa Previsione		GIORNO GAS (G+2): qq/mm/aaaa Previsione	
IMMESSO								
Edison Stoccaggio [4]								
RICONSEGNATO [5]								
ESPORTAZIONE								
Consuntivo/Programmato movimentato dalle								
Capacità di stoccaggio disponibile [6]								
SBILANCIAMENTO ATTESO DEL SISTEMA (E								
RECUPERO LP G-1								
RIBILANCIAMENTO RESIDUALE								
Line Pack di rete effettivo/dichiarato (LP*/LP								
Line Pack di rete ex Art.5.2 Del 312/2006								
Sop								
Gradi Giorno Medi Ponderati Italia 15°C								

The items below are indicated in million Sm3 and in MWh.

Intake

- Area Day D-1

  Until the time of publication of the Provisional Balance, the data shown is as resulting from the latest nomination/renomination cycle as per Chapter 8, par. 6, of the Network Code

$$INTAKE = \sum_{NE} Ia_{EG}$$

  After the publication of the Provisional Balance, the data shown is as resulting from the provisional balance allocation of entry points,

$$INTAKE = \sum_{NE} Ia_{EG}$$

- Area Day D

  The data shown is as resulting from the latest nomination/renomination cycle as per Chapter 8, par. 6, of the Network Code,

$$INTAKE = \sum_{NE} Ia_{EG}$$

- Area Day D+1

  Is the forecast of the intake based on the programmed amounts pursuant to Chapter 8 of Network Code of the complex of the Users.

  Until the closing of the nomination cycle, the data shown is as resulting from Weekly Transportation Gas Program of delivery points,

$$INTAKE = \sum_{NE} Ia_{EG}$$

  Starting from the end of the first nomination cycle, the data shown is as resulting from the last nomination/renomination cycle for delivery points,

$$INTAKE = \sum_{NE} Ia_{EG}$$

- Area Day D+2

  Is the forecast of the intake based on the programmed amounts pursuant to Chapter 8, par 5, of Network Code of delivery points,

$$INTAKE = \sum_{NE} Ia_{EG}$$

Edison Stoccaggio

In the publication, the negative sign indicates the withdrawal.

- Area Day D-1

  Until the time of publication of the Provisional Balance, the data shown is as resulting from the latest nomination/renomination communicated by the storage company (Chapter 8, par 6 of Netwok Code).

After the publication of the Provisional Balance, the data shown is as resulting from the provisional balance allocations.

- Area Day D
  Data shown is as resulting from the latest nomination/renomination communicated by the storage company (Chapter 8, par 6 of Netwok Code).

- Area Day D+1
  Data shown is as resulting from the latest nomination/renomination communicated by the storage company (Chapter 8, par 6 of Netwok Code).
  Until the closing of the nomination cycle, the data shown is as resulting from Weekly Transportation Gas Program.

  Starting from the end of the first nomination cycle, the data shown is as resulting from the last nomination/renomination cycle

- Area Day D+2
  The data shown is as resulting from Weekly Transportation Gas Program as per Chapter 8, par 5 of Network Code.

Demand

This data does not include Losses, Fuel consumption and unaccounted for gas.

- Area Day D-1
  Until the time of publication of the Provisional Balance, the data shown is as resulting from the latest End of day forecast provided in "Detail area of Gas-day (D)" of the last publication made the previous day, excluding Exports,

$$DEMAND = Pa_G$$

  This item is updated after the publication of the Provisional Balance.
  This item is the total amount withdrawn, including TSO quantities (Losses, Fuel consumption and unaccounted for gas).

$$DEMAND = Pa_G$$

- Area Day D
  The data shown is as resulting from the End of day forecast, excluding Exports.
  This item is the total amount withdrawn, including TSO quantities (Losses, Fuel consumption and unaccounted for gas).

$$DEMAND = Pa_G$$

  As per Resolution 554/2016/R/gas, comma 3, thermoelectric is shown as part of "Final customers directly interconnected with the Transmission System". This data is shown, if available, as information received by TERNA.

- Area Day D+1
  Data shown is the quantity of gas expected to be withdrawn from all the Users.
  This item is the total amount withdrawn, including TSO quantities (Losses, Fuel consumption and unaccounted for gas).

$$DEMAND = Pa_G$$

  As per Resolution 554/2016/R/gas, comma 3, thermoelectric is shown, if available, as information received by TERNA.

- Area Day D+2
  Data shown is the quantity of gas expected to be withdrawn from all the Users.

$$DEMAND = Pa_G$$

Export

- Area Day D-1
  Until the time of publication of the Provisional Balance, the data shown is as resulting from the latest nomination/renomination cycle as per Chapter 8, par 6 of Network Code.

  After the publication of the Provisional Balance, the data shown is as resulting from the provisional balance allocations.

- Area Day D
  The data shown is as resulting from the latest nomination/renomination cycle as per Chapter 8, par 6 of Network Code.

- Area Day D+1
  Until the closing of the nomination cycle, the data shown is as resulting from Weekly Transportation Gas Program.

  Starting from the end of the first nomination cycle, the data shown is as resulting from the last nomination/renomination cycle.

- Area Day D+2
  The data shown is as resulting from Weekly Transportation Gas Program.

Provisional/Forecast storage flow from/to

It is the energy of storage STOGIT; It is obtained by the algebraic sum of the amount of energy physically withdrawal/ or expected from the storage hub. In the publication, the negative sign indicates the withdrawal.

- Area Day D-1
  Until the time of publication of the Provisional Balance, the data shown is as resulting from the latest End of day forecast provided by the storage company as per Chapter 8, par 6 of Network Code.

  After the publication of the Provisional Balance, the data shown is as resulting from the provisional balance allocation.

- Area Day D
  The data shown is as resulting from the latest nomination/renomination cycle as per Chapter 8, par 6 of the Network Code

- Area Day D+1
  The data shown is as resulting from the latest nomination/renomination cycle as per Chapter 8, par 6 of the Network Code

- Area Day D+2
  The data shown is as resulting from the latest weekly forecast made by the storage company as per Chapter 8, par 5 of the Network Code

Available storage capacity

Is the overall withdrawal/injection service assigned to storage Users for Gas-day (adjusted on the basis of the adjustment factors referred to in the Storage Code), in the Withdrawal Phase (SE_{MG}), and Injection Phase (SI_{MG}), (negative sign = withdrawal). This capacity is updated as per Resolution 193/2016/R/gas.

EXPECTED SYSTEM IMBALANCE (SAS)

As provided by par. 1.1 of Chapter 9 of Network Code approved by Resolution 312/2016/R/gas, the estimation of the Expected System Imbalance at the end of the gas day G and G + 1, is determined as the difference between the quantity of gas, in energy, overall programmed in accordance with Chapter 8 of Network Code in Intake into the transport system for the gas day G and output at Points interconnected with the storages and interconnected with foreign countries, based on the latest information (programs) notified in accordance with Chapter 8 of Network Code, from all the Users and the quantity of gas, in energy, expected to be withdrawn from the overall of Users in Gas Day calculated with demand at the redelivery points forecasting systems in use at the Dispatching.

$$SAS = INTAKE_{Programmed} - DEMAND_{Expected\ SRG} - EXPORT_{Programmed} - \Delta\ LinePack_{Programmed} + STORAGE_{Programmed}$$

LP RECOVERY (D-1)

LP Recovery (D-1) is the difference between the level of linepack (LP^d) at the end of the Gas-Day D, stated by the Balancing Operator within 9 AM of gas-day D for gas-day D, the level of linepack (LP^e) reached at the end of the Gas-Day D-1 and Δ Line Pack nominated for gas-day D

$$LP\ Recovery(D-1) = LP^d_D - LP^e_{D-1} - \Delta LP_{D\ nominated}$$

RESIDUAL BALANCE

Is the difference between the estimation of the Expected System Imbalance and LP Recovery (D-1)

$$Res\ Bal_{target} = SAS - LP\ Recovery(D-1)$$

Network Line Pack actual/declared (LP^e/LP^d)

- Area Day D-1

Is the level of linepack (LP^e), in energy, reached at the end of the Gas-Day D-1 as per article 9.2 of TIB.

- Area Day D

Is the level of linepack (LP^d), in energy, at the end of the Gas-Day D, stated by the Balancing Operator within 9 AM of gas-day D for the same gas-day D as per article 9.2 and 11.2 of TIB.

Network Line Pack ex Art.5.2 Res 312/2016

Is the expected level of linepack, in energy, at the end of the Gas-Day D without considering any quantities requested at the storage companies, pursuant to paragraph 2.4 of the TIB.

Sop

This data is the difference between the energy related to the storage component is obtained from the sum of quantities physically delivered (positive) or injected (negative) from each storage field, resources available as per article 7 of TIB, and the total quantity of scheduled gas in injection or withdrawal from the Storage hub as per Chapter 8 of Network Code.