



ARERA

Autorità di Regolazione per Energia Reti e Ambiente



Workshop with analysts and investors 2023

12th April 2023

Part I – Report on Electricity and Gas

Agenda

1. General context overview of the energy sector and market trends in Europe
2. Wholesale and retail markets regulation
3. Evolution of infrastructure regulation



1.

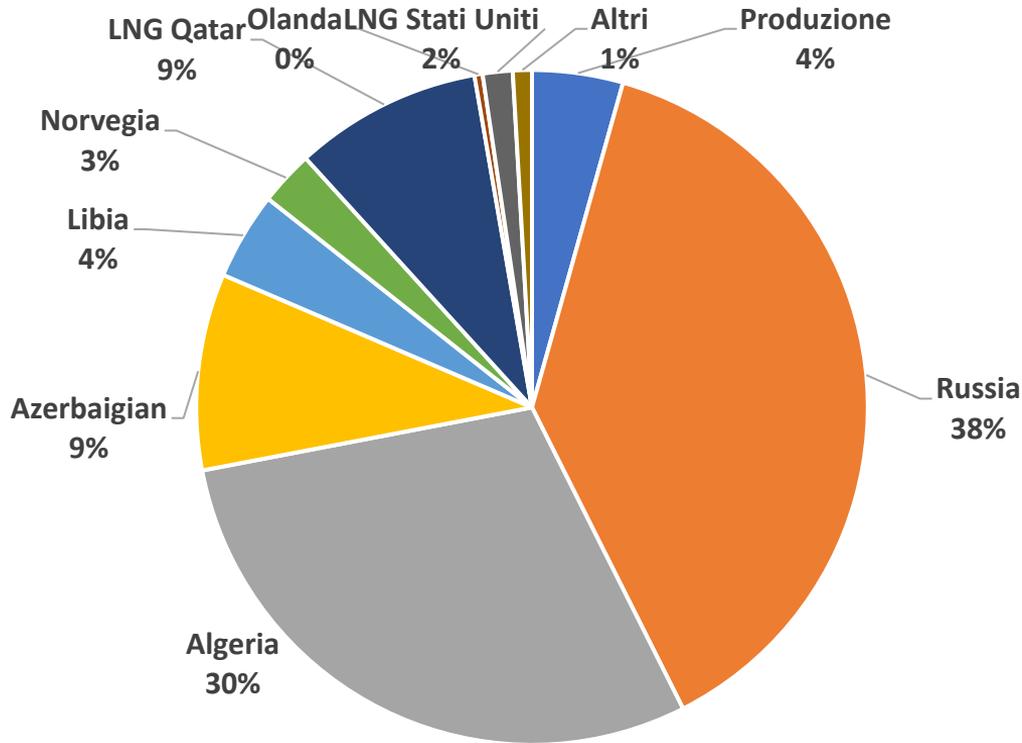
General context overview of the energy sector
and market trends in Europe

Gas prices in Europe

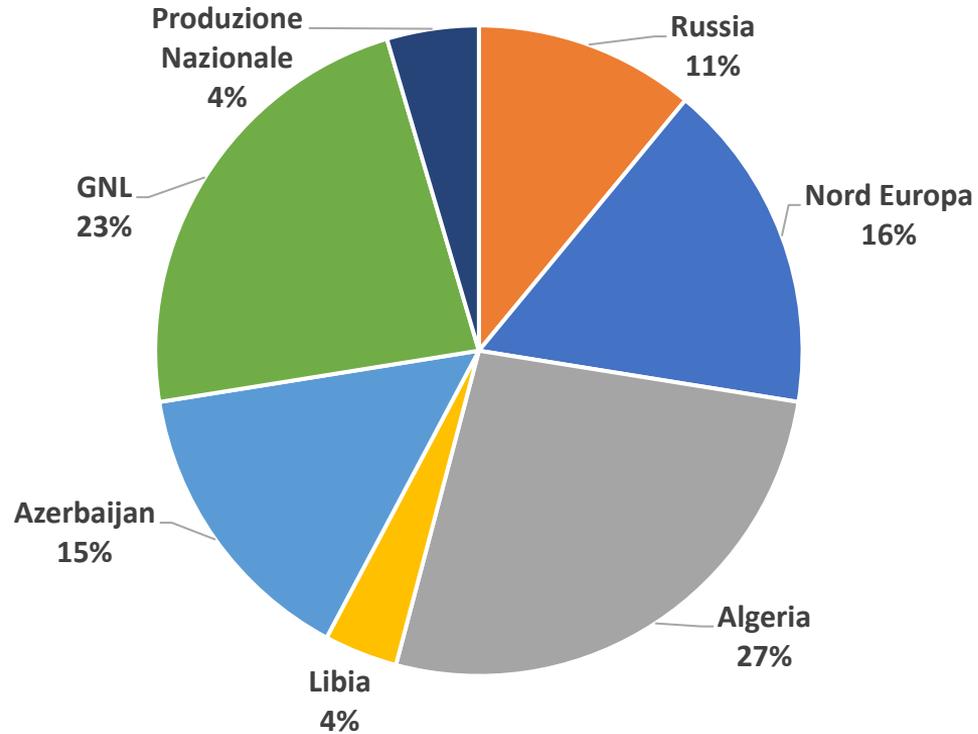


Until 2022 the *day-ahead prices* of gas in the European markets were all highly correlated

Source of natural gas in Italy in 2021



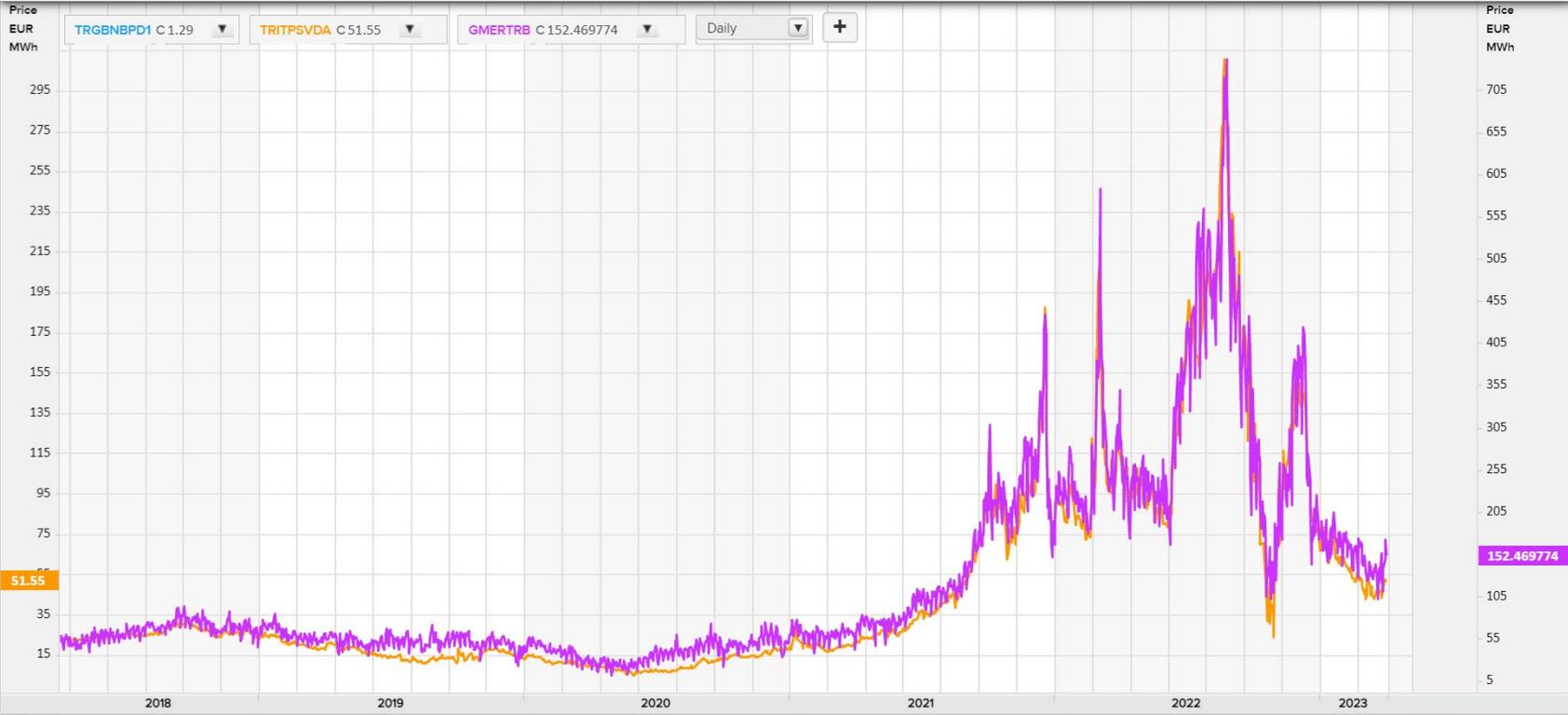
Natural gas origin in Italy 2022



SNAM data

Total consumption: 68.5 billion m³

Gas-electricity price correlation in Italy



Causes of gas price fluctuations (TTF DA)



Emergency measures 1/

Obligation to fill storage (Regulation (EU) 2022/1032 of the European Parliament and of the Council of 29 June 2022)

- Obligation for all Member States with storage filling capacity of 80 % **by 1 November 2022 and 90% for subsequent years up to 31 December 2025**
- Obligation for all Member States without storage capacity to store **the equivalent of 15% of their consumption** in Member States with storage capacity
- Differentiated targets by Member State and **filling trajectory** with intermediate targets for the period from August 2022 to September 2023
- Recognition of storage as critical infrastructure for certification purposes and incentive rates for filling

Gas demand reduction targets (Regulation (EU) 2022/1369 of the Council pursuant to art. 122 TFEU of 5 August 2022)

- Voluntary reduction in gas demand by all **Member States by 15% for the period from 1 August 2022 to 31 March 2023 compared to the previous five-year average for the same period**
- Mandatory reduction in the event of an emergency declaration by the Commission or at least 5 Member States
- System of derogations to take into account specific national situations including the possibility of considering storage surpluses with respect to the targets in calculating the reduction in gas demand

Emergency measures 2/

Emergency intervention to deal with high energy prices (Regulation (EU) 2022/1854 of the Council pursuant to art. 122 TFEU of 6 October 2022)

Reduction of electricity consumption

- Indicative target to reduce electricity consumption by 10% and mandatory target of 5% to reduce electricity consumption in certain peak hours equal to 10% of the monthly hours for the period from 1 December 2022 to 31 March 2023
- Flexibility granted to MS on the measures to implement the objective according to guiding principles (*market based, financial compensation, no distortions of competition*)

Cap on the rents of infra-marginal technologies

- Cap of 180 EUR/MWh on the income of all producers from infra-marginal technologies
- Target: renewable technologies, waste, nuclear, lignite, petroleum products and peat
- Obligation to reuse revenues for measures to support electricity end customers
- Applicable from 1 December 2022 to 30 June 2023

Price setting measures in the retail sector

- Possibility of intervention with price setting measures in favor of SMEs
- Possibility of regulating prices below cost

Emergency measures 3/

Emergency measures on gas price formation mechanisms

(Regulation (EU) 2022/2576 of the Council ex art. 122 TFEU of 19 December 2022 which promotes solidarity through better coordination of gas purchases, reliable benchmarks for prices and cross-border gas exchanges)

Establishment of a joint gas procurement mechanism

- Greater transparency in the signing of gas contracts
- Demand aggregation mechanism with the obligation for Member States to participate for at least 15% of the volumes necessary to achieve the gas storage filling targets
- Joint gas purchases on a voluntary basis

Package of interventions on gas price formation mechanisms

- Alternative benchmark to the TTF for LNG trading
- Mechanisms to limit volatility in derivatives market transactions (so-called **circuit breakers**)

Strengthening of solidarity between Member States in case of emergency

- Mechanism to make available the capacity reserved and left unused by market operators
- Solidarity rules by default in the event of no bilateral solidarity agreements between Member States
- Extension of the solidarity rules to the volumes of gases critical to the production of electricity

Measures at European level 4/

The Market Correction Mechanism - price

(Regulation (EU) 2022/2578 of the Council pursuant to art. 122 TFEU of 22 December 2022 which establishes a market correction mechanism) in force for 1 year from February 2023

Conditions for activation

- the price of monthly TTF derivatives exceeds 180 EUR/MWh for three business days and
- the price of monthly TTF derivatives is 35 EUR above a reference price for LNG on world markets for the same three business days

Deactivation mechanism

- If the dynamic supply limit is lower than 180 EUR/MWh for three consecutive working days, it will be deactivated automatically
- The dynamic bid limit will also be deactivated automatically, at any time, if the European Commission declares a state of emergency at regional or Union level

Suspension mechanism - safeguard clauses

- Risk to security of supply
- Increased gas consumption
- Impacts on intra-EU gas flows
- Impacts on the financial markets

Main emergency measures in Italy

DIRECT SUPPORT OF DOMESTIC AND INDUSTRIAL CONSUMERS

- Increase in the access threshold and discount on bills for low-income consumers (**Bonus sociale**)
- Reduction of **VAT on natural gas** to 5% and elimination of system charges initially only for domestic consumers and then extended to all consumers
- **Tax credits** to businesses (initially extended to energy-intensive companies and then gradually to all)

MEASURES DIRECTED AT WHOLESALE MARKET OPERATORS

- **Cap to the inframarginal incomes** for the production from renewable energies
- **Solidarity contribution** (25% tax on the profits of all energy operators)

SECURITY OF NATURAL GAS SUPPLIES

- Incentives for filling storage to achieve the objectives set out in Regulation (EU) 2022/1032
- LNG capacity increase (Piombino)

Monitoring of gas import contracts 1/

- To evaluate the risks and dynamics of price formation on the Italian wholesale market attributed to ARERA (art. 7, decree law 21/22 converted into law 51/22)
- Collection of natural gas import contracts launched with resolution 143/2022/R/gas and preliminary investigation with operators
- Analysis of single contract **with a duration of > 1 year**
- Most of natural gas imports from **long-term contracts** (contracts with full duration > 20 years equal to around 60%) but the share of **medium and short-term contracts** (duration between 5 and 20 years, around 15%) shows a trend of slow but **constant increase**

Monitoring of gas import contracts 2/

Report 252/2022/I/gas

- Price formulas indexed to **natural gas prices** (DA, monthly and quarterly forwards) on European hubs (TTF/PSV) for 70-80% of the contracted volumes and to **oil product prices** (Brent) for 20-30%
- Contractual clauses of **ordinary (annual) and extraordinary periodic reviews**
- Under normal market conditions, the costs of long-term import contracts tend to maintain **trends consistent with the value of gas on the wholesale market**
- The cost of the contracts can differ, even significantly, from the procurement cost due to the **hedging actions** implemented by the operators

Reform of the design of the electricity market

- Proposal for a Regulation amending the **Electricity Regulation 943/19, Directive 944/2019 (CEP) and consequent adaptations of the RED II Directive and ACER Regulation**
- Proposal for a Regulation amending the **REMIT Regulation**
- **Legislative process** : ordinary legislative procedure of co-decision of the Council and the European Parliament
- **Approval deadline** : within the current European legislature, first quarter 2024



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Changes to Reg. 943

- **New peak shaving service:** option available to TSOs to enforce demand reduction (i.e. interruptibility services only procured in the short term as an auction to select interruptible subjects 2 days before activation and the contract is valid only for 1 day)
- **Long term capacity allocation:** regional virtual hubs are created (proposed by Entso-e – approved by ACER within 6 months); the zone-hub rights are allocated as FTRs
- **PPAs – obligation for Member States to make available “guarantee schemes”, to edge from counterparty risk**



Changes to Reg. 943

- **CfDs become the only way to support renewables and nuclear power** without removing price signals effects on demand;
- **Promotion of flexibility (DSR and storage)**
 - Complex mechanism coordinated at European level for the assessment of national needs (NRAs , TSOs , DSOs and ACERs)
 - Auctions, storage and incentive mechanisms only where the needs included in the CRMs - where they exist - do not allow target achievement



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Changes to Directive 944

Introduction of obligations for:

- Energy sharing
- Seller edging
- Establishment of **Suppliers of Last Resort** through competitive auctions
- Offer of a **fixed price contract**
- More than one supplier per single user based on **additional meters**

Possibility for Member States to introduce **regulated prices, even below costs**, for domestic customers and SMEs, in the event of a **declaration of emergency** at European or regional level



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Gas decarbonisation package

- Legislative proposals presented by the European Commission in December 2021
 - **Revision of Directive 73/2009/EC** containing common rules for the internal market in natural gas
 - **Revision of Regulation 715/2009/EC** relating to the conditions for access to natural gas transportation networks
- EU ordinary legislative co-decision procedure
- The European Parliament (ITRE Commission, 02/09/2023) and the European Council (TTE Council 03/29/2023) have adopted their amendments to the text proposed by the EC: **the negotiation has entered the interinstitutional trilogue phase**

Main measures on renewable gases and hydrogen

Promotion of renewable and low-carbon gases

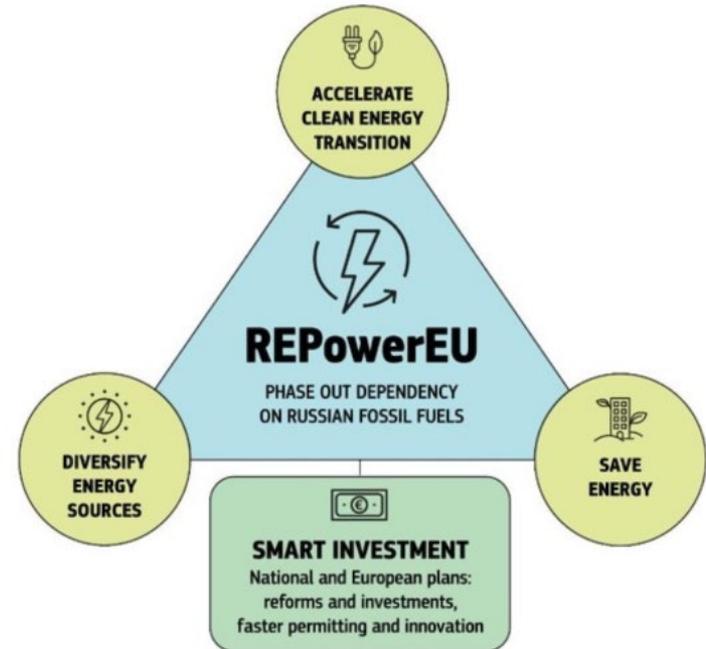
- Definition of renewable and low-carbon gases and hydrogen
- **Tariff discounts for network access**, storage and LNG for renewable and low-carbon gases
- **Cap of 5% of H2 blending** at cross-border points

Hydrogen regulation (H2)

- Regulated Access to Networks (**TPA**)
- Separation of transmission from production/supply with **ownership unbundling or ISO**; possible ITO until 2030
- Temporary exemptions for existing and geographically confined hydrogen networks
- No entry-exit fees
- Cross subsidies between gas and H2 possible but with many conditions
- Establishment of the European Network of Network Operators for Hydrogen (ENNOH)
- Greater integration between electricity, gas and H2 development plans
- Expertise in the regulation of hydrogen to the energy regulator

EU policies on renewables following the energy crisis: REPowerEU

Response to the hardships and global energy market disruption caused by Russia's invasion of Ukraine.



A renewed level of ambition

Massive expansion and acceleration of renewables in power generation, industry, construction and transportation

- **Increase the 2030 target for renewables** from 40% to 45%.
- EU solar energy strategy to **double solar PV capacity by 2025** and install 600 GW by 2030
- Rooftop solar panel initiative with gradual introduction of a legal requirement to install solar panels on new public, commercial and residential buildings
- **Recommendation to address the slow and complex permitting procedures** for large renewables projects and a targeted amendment of the Renewables Directive so that renewables are recognized as an overriding public interest
- Setting a target of 10 million tonnes of domestically produced renewable **hydrogen** and 10 million tonnes of imported renewable hydrogen by 2030 in transport and hard-to-decarbonise industrial sectors (hard to *abate*)
- Action plan for **biomethane**, including a new industrial partnership for biomethane and financial incentives to increase production to 35 billion cubic meters by 2030.

2.

Wholesale and retail markets regulation

WHOLESALE POWER MARKETS

- **Dispatching and balancing regulation:**
 - **TIDE organic reform**
Last ARERA guidelines in the consultation paper of 13 December 2022 (resolution 685/2022/R/eel)
 - **TSO Incentive scheme** on balancing and dispatching costs
- **Revision of the Integrated Text on Active Connections (TICA)**
- **Integrated text for self-consumption (TIAD, resolution 727/2022/R/eel)**
for the regulation of self-consumption, even remotely through the application of the "virtual" model



WHOLESALE POWER MARKETS

- **Integration with EU platforms**
 - **Intraday**

Since Sep 2021 Italy is participating in the EU ID continuous trading mkt
 - **Balancing**
 1. Since Jan 2020 – Terna participates to “Imbalance netting” platform
 2. Since Jan 2021 – Terna participates to “Tertiary reserve” platform
 3. Participation in automatic secondary reserve platform exp in July 2023
(see Arera resolution 115/2023/R/eel)
 - **Gradual phase out of the Single National price (for consumption)** introduced by legislative decree 210/2021 – art. 13
 - **New procurement mechanism for electricity storage units:** Introduced by legislative decree 210/2021 – art. 18 – currently ARERA is designing the implementation details (see public consultation 393/2022/R/eel)
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WHOLESALE GAS MARKETS

- Regulation of gas services impacting wholesale gas markets (transmission, regasification, storage) has been defined in the previous years. **Full market base arrangement are in place and functioning**
- Measures to remove barriers and to deliver efficiency at the wholesale/retail market interface are under completion (**settlement - transmission capacity booking at city gates**)
- In 2022 specific measures to manage the crisis (**market based incentives to fulfill storage target** and last resort storage – review of reserves price to book regasification capacity)

RETAIL MARKETS – MEASURES FOR THE ENERGY CRISIS

- **Implementation of emergency government interventions** in periodical updates of tariffs and prices in power and gas
 - system charges discounts
 - bonus extension
 - VAT reduction measures
 - **UG2 negative component of the gas distribution tariff** limited to small consumption (up to 5.000 cubic meter per year)
 - **Reform of the gas regulated price formula (servizio di tutela) (resolution 374/2022/R/gas)**
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RETAIL MARKETS - EXIT FROM REGULATED PRICES

Timing required by law

- **Small non micro-enterprises** approx. 200 thousand, since 2021
- **1 April 2023** (deadline extended from 1 January 2023) for **electricity sector micro-enterprises** (< 10 employees and < 2 million turnover) slightly over 1,5 million customers
- **January 10, 2024** for **households electricity and gas customers**, about 10 million customers

Tool to accompany customers in the transition to the free market for electricity

- **Servizio a tutele graduati (STG)** last resort supply service provided by vendors selected through auctions for 4 years



RETAIL MARKETS – VULNERABLE CUSTOMERS

Electricity

For **vulnerable customers** (defined by legislative decree 210/2021), sellers are obliged to offer energy at a price that reflects the cost of energy on the wholesale market, the efficient costs of the marketing service and the contractual and quality conditions of the service according to conditions that will be defined by ARERA

Gas (resolution 100/2023/R/com of 14 March 2023) defines:

- the procedures for the removal of the natural gas protection service and the regulation of the supply conditions applicable to vulnerable customers as identified by the “Decreto Aiuti bis”;
- the suppliers’ obligations to provide information on the removal of the gas protection service and on the rights of vulnerable customers;
- interventions on the Code of commercial conduct and on the Rules governing the ARERA price comparison tool namely Portale Offerte, following the removal of price protections (electricity and gas).

3.

Evolution of infrastructure regulation



INFRASTRUCTURE

Main challenge

Optimize combined gas and power infrastructure development to support decarbonization process maintaining security of supply

- Continuous improvement of **output based regulation**, examples:
 - Incentives for **keeping natural gas transport networks in a state of health** as an alternative to new infrastructure investments
 - Incentive mechanism for **increasing transportation capacity within the optimal capacity targets** between market bidding zones / frontiers
- **Pilot projects**
- Implementation of **output-based and forward-looking regulatory model for Italian energy networks, the so-called ROSS-integrale** ('Regolazione per Obiettivi di Spesa e di Servizio', in its 'full' version)



INFRASTRUCTURE

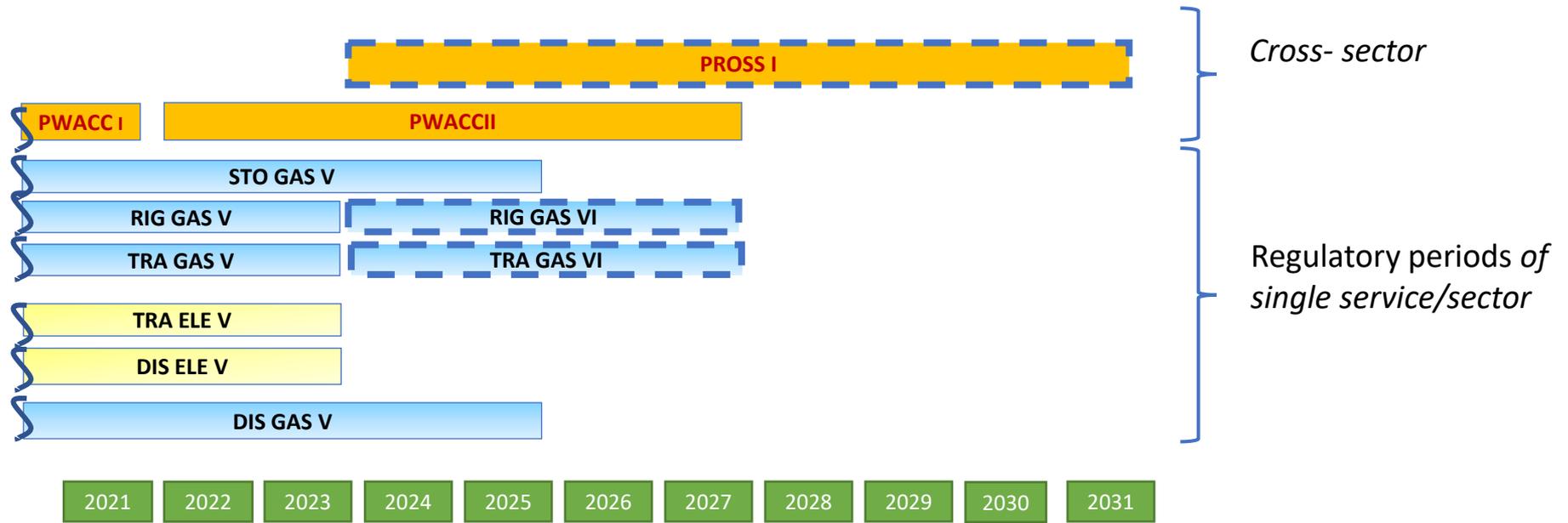
ROSS-base *(started with resolution 271/21)*

- reduce distortions from capex bias
- total productivity incentives
- alignment of specific regulations

ROSS-integrale *(started with resolution 527/22)*

- Making companies responsible by strengthening the forward-looking dimension of spending
- accompany the energy transition
- greater integration of output-based mechanisms

The point on regulatory periods



GAS: transport: proceeding already started

ELECTRICITY: transmission and distribution: proceedings to be initiated

Thank you !

Massimo Ricci - Head, Energy Department, ARERA

