

STARTING A NEW DESIGN OF MARKET MONITORING Energy Intermarket Surveillance Group Meeting 39

Natasha Avendaño García, Ph.D. Superintendent of Public Utilities October 22nd, 2019. Santiago de Chile



El futuro

es de todos

DNP Departamento Nacional de Planeación

Responsabilities of the Superintendency

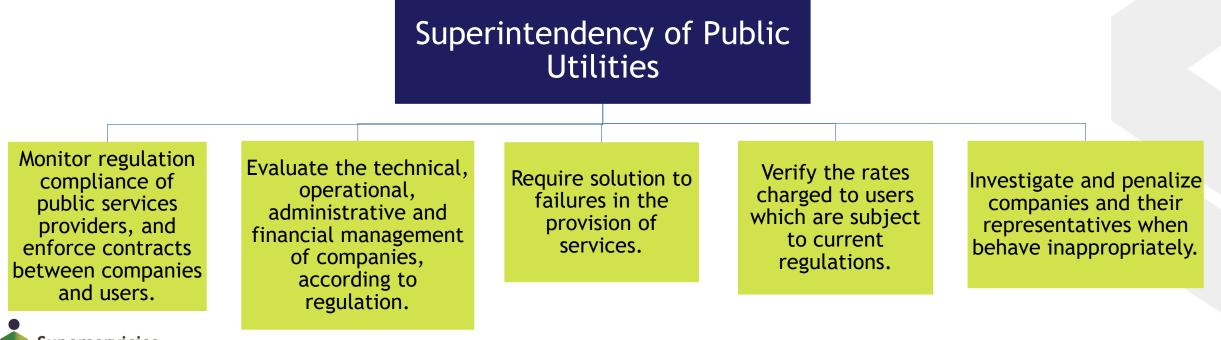


Responsabilities are outlined in Law 142 of 1994



Mission

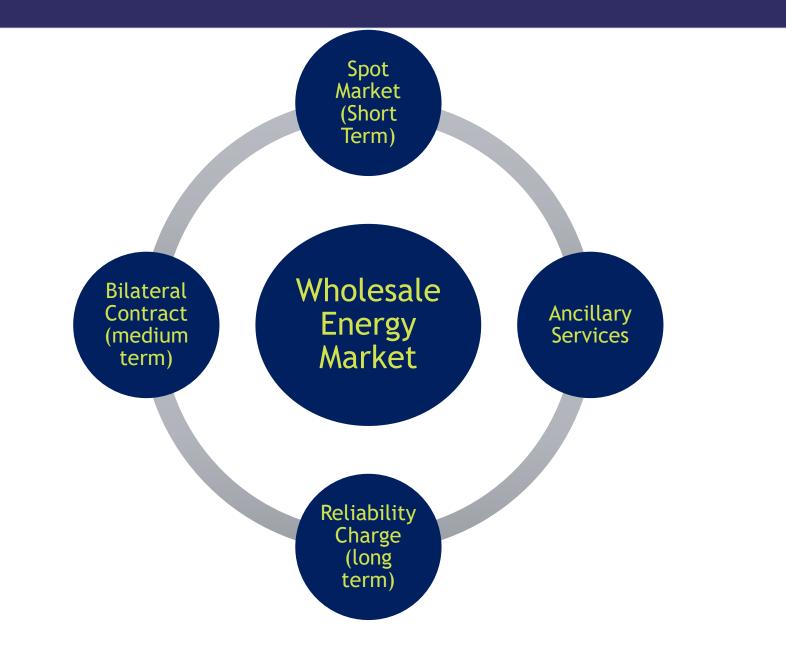
Promote and protect the rights and obligations of users and providers of public services, and the provision of these essential services in a sustainable way according to the defined quality standards, in order to contribute to improving the quality of life of Colombians, the competitiveness of the industry and the economic and social development of the country.



Colombian Markets Overview

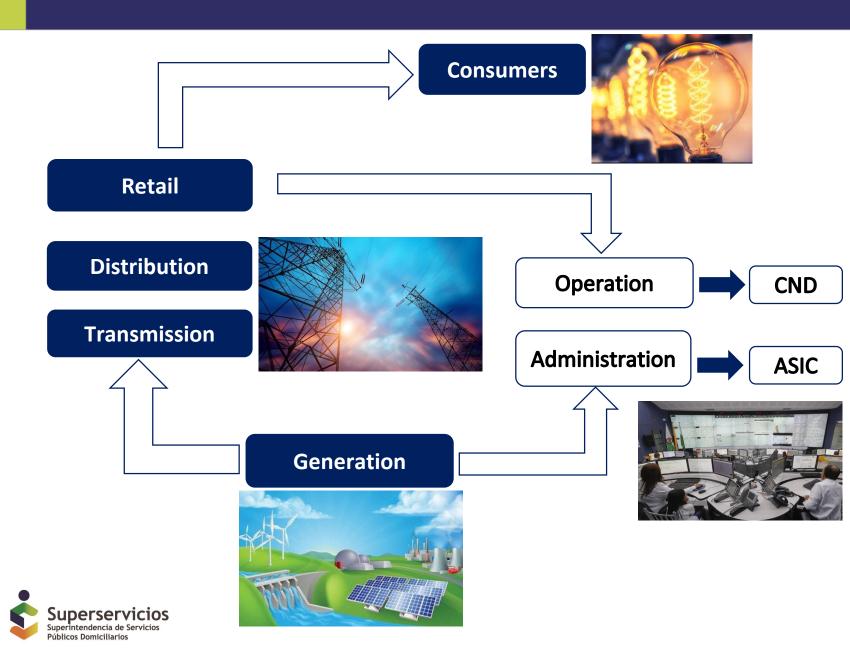


Wholesale electricity market structure





Electricity Market Components



Market

- Day ahead market.
- Auction with uniform marginal price.

Offers by agents

- Single price for the day.
- Hourly availability declaration.

CND

٠

 Operation and administration of the system

Consumers

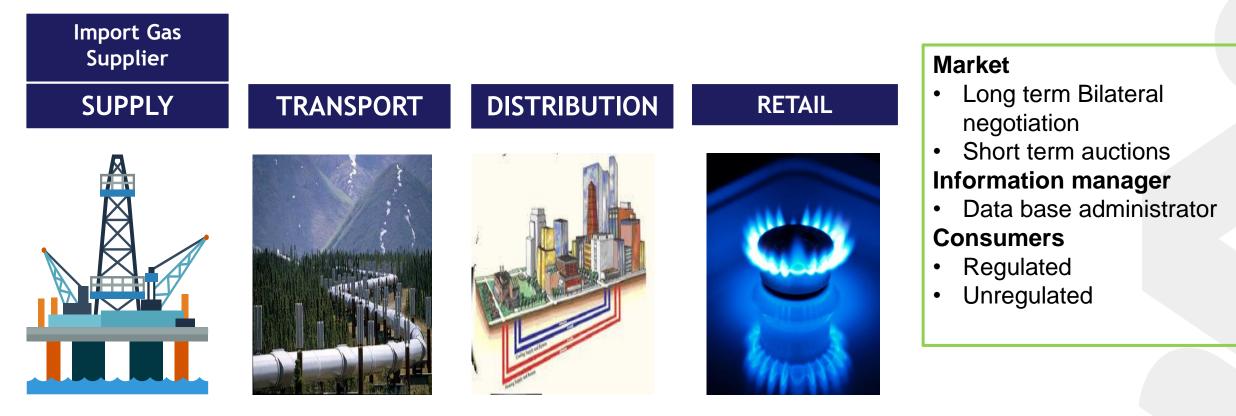
- Regulated
- Unregulated
- International exchanges

Wholesale natural gas market structure





Natural Gas Market Components





Markets Data

Electricity

Capacity: 17.422 MW, 68% Hydro 30% Thermal Annual Demand 2018: 69.121 GWh/year Average Spot Price 2019: 60 USD/MWh

Supply Market

	1	2	3	4	5
Top 5 Market Share	21%	20%	18%	7%	6%
HHI	1302				

Retail Market

	2006	2017	2018
Highest Market Share	22%	28%	30%
Combined Market Share (2 companies)	37%	52%	53%
HHI	1955	1784	1816
Number of companies	57	50	47

Natural Gas

Production Potential 2019: 1.204 GBTUD Average Demand 2019: 869 GBTUD Average Contract Price 2019: 4,17 USD/MBTU

Supply Market

	1	2	3	4	5
Top 5 Market Share	50%	15%	11%	7%	6%
HHI	2953				

Retail Market

	2008	2013	2018
Highest Market Share	31%	27%	24%
Combined Market Share (2 companies)	44%	40%	37%
HHI	1497	1330	1186
Number of companies	60	76	94



Evolution of Market Monitoring in Colombia



Evolution of the Market Monitoring in Colombia

2018 Advice from external entites for the creation of a Monitoring Unit.

2006

Creation of the Wholesale Energy Market Monitoring Committee (CSMEM).

Conformed by 3 experts.

Superservicios

ublicos Domiciliarios

2016 CSMEM finished monitoring activities.

106 reports published.

October of 2018 - Begginning of the development of the Monitoring Unit.

1st semester of 2019 Identification of monitoring priorities and technological support needs. October 2019 (1st year) Management organization and implementation of the firsts monitoring

technological tools.

ELECTRICITY AND NATURAL GAS MARKETS MONITORING UNIT (UMMEG)

What is the UMMEG

The Electricity and Gas Markets Monitoring Unit (UMMEG) is a work group created within the Delegated Superintendency for Energy and Gas, responsible for the monitoring of electricity and gas wholesale markets.



<u>Goals</u>

Develop methodologies for monitoring the electricity and natural gas wholesale markets.

Establish prospective monitoring processes based on performance indicators of electricity and natural gas markets.

Publish periodic information on the performance of the electricity and natural gas markets.

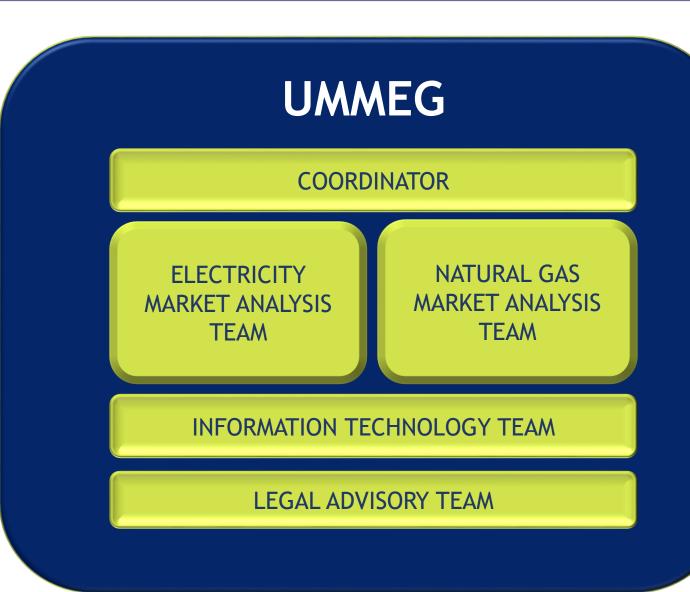
Collect inputs for investigations oriented to demonstrate regulatory breaches



STRUCTURE



Mercados de Energía y Gas Natural





Joint work with stakeholders

Operation and Data base administrators

- Access to transactional and operational information.
- Communication protocols and information exchange.
- Meetings to discuss operational issues.
- Identification of issues to improve quality of reporting for both sectors.

Superservicios

Agents

- Requirements of information.
- Monitoring meetings.
- Inspection visits.

Policy maker and regulator

- Information exchange
- Discussion of operational issues.
- Agents behaviors analysis.
- Identification of issues to improve market beahavior.
- Policy and/or regulation improvement.



Indicators implemented by UMMEG





• Pivotal test

- Residual Offer
- Herfindahl -Hirschman
 - Index (HHI)
- Market Share
- Pricing
 - Lerner Index



as

(ワ

• Price dispersion

- Transactions between affiliates
- Availability of Imported natural gas



Outputs of the UMMEG

- Weekly
- Relevant indicators.
- Tracking operational events.
- Regulatory news.
- Analysis on gas and electricity issues.

Monitoring Committee



• Weekly

- Internal document.
- Indicators tracking.
- Regulatory news.

Infography

• Semestral

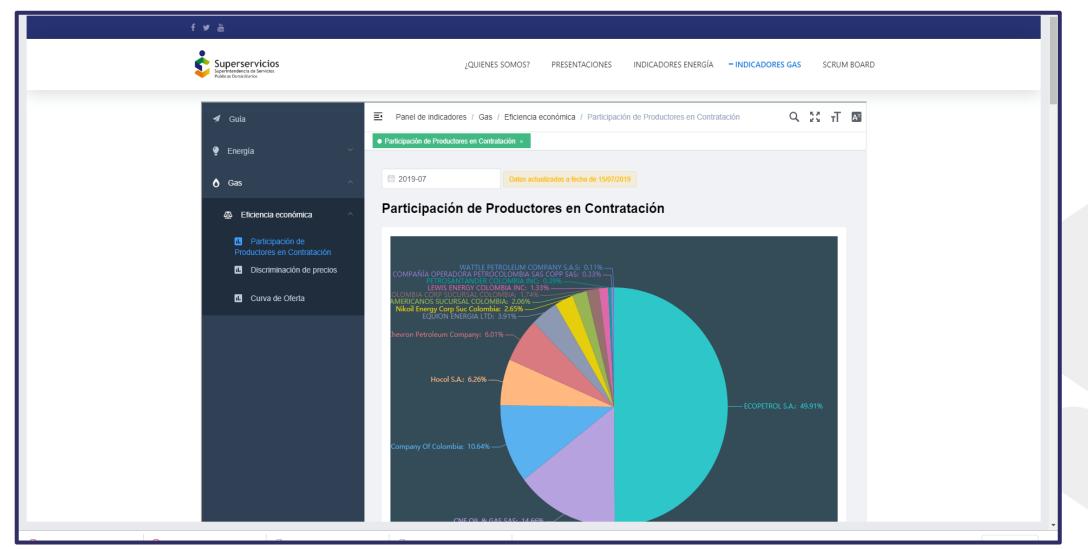
- Internal/External documents.
- Market analysis.
- Relevant situations.
- Compilation of daily monitoring.

Market report





Webpage Development



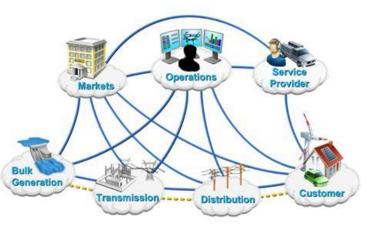


The UMMEG plans to become a benchmark for wholesale markets

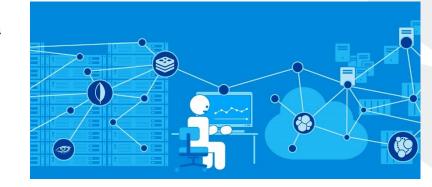
Statistical analysis and forecasting



Devolping of analytical models



Big Data analysis





Thank you

Superintendency of Public Utilities Carrera 18 No. 84-35 Pbx: (57-1) 691-3005 <u>sspd@superservicios.gov.co</u> <u>www.superservicios.gov.co</u> Bogotá D.C., Colombia

> Natasha Avendaño García, Ph.D. <u>navendano@superservicios.gov.co</u> @nanendanog

