

سونلغاز



sonelgaz



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THE US-ALGERIA BUSINESS COUNCIL & THE BILATERAL US-ARAB CHAMBER OF COMMERCE WITH THE SUPPORT OF THE EMBASSY OF ALGERIA IN WASHINGTON, DC

Development Prospects for Electricity and Gas Sector in Algeria and Industrialization 2016 -2025

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1. Sonelgaz and Subsidiaries

1.1 Introducing Sonelgaz

- Sonelgaz, is the historical operator in the field of :
 - ✓ Generation, transmission and distribution of electricity
 - ✓ Transmission and distribution of gas by pipelines,

has been restructured from a vertically integrated company to a holding driving an industrial group consisting of several companies and various trades.

- These companies undertake all operational activities.
- The holding ensures steering through the definition and implementation of the development strategy of its affiliates and their related activities.

1.2 Main Fields of Activities of Sonelgaz Group Companies Subsidiaries by Activities and Equity Participations

Generation, transmission &
distribution of Power



Transportation & distribution
of Gas by pipeline



Research, Engineering
Construction & Services



Manufacture of
Equipment



Electricity and Gas works



39 Subsidiaries

Energy Industries
13 Subsidiaries

Industrial Activities
07 Subsidiaries

Works & Services
15 Subsidiaries

Institutional Security
04 Subsidiaries

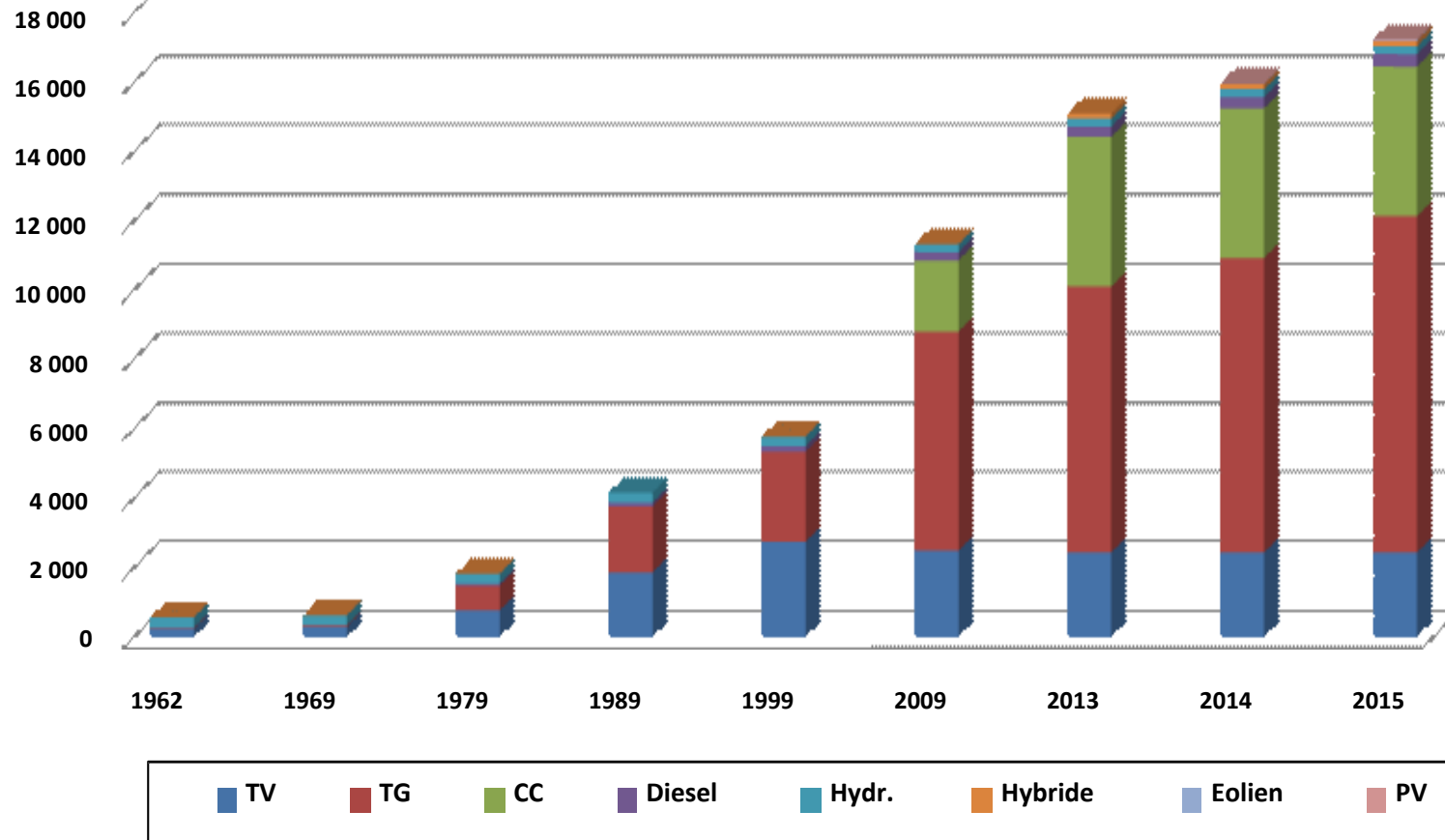
09 Participations

09 Companies

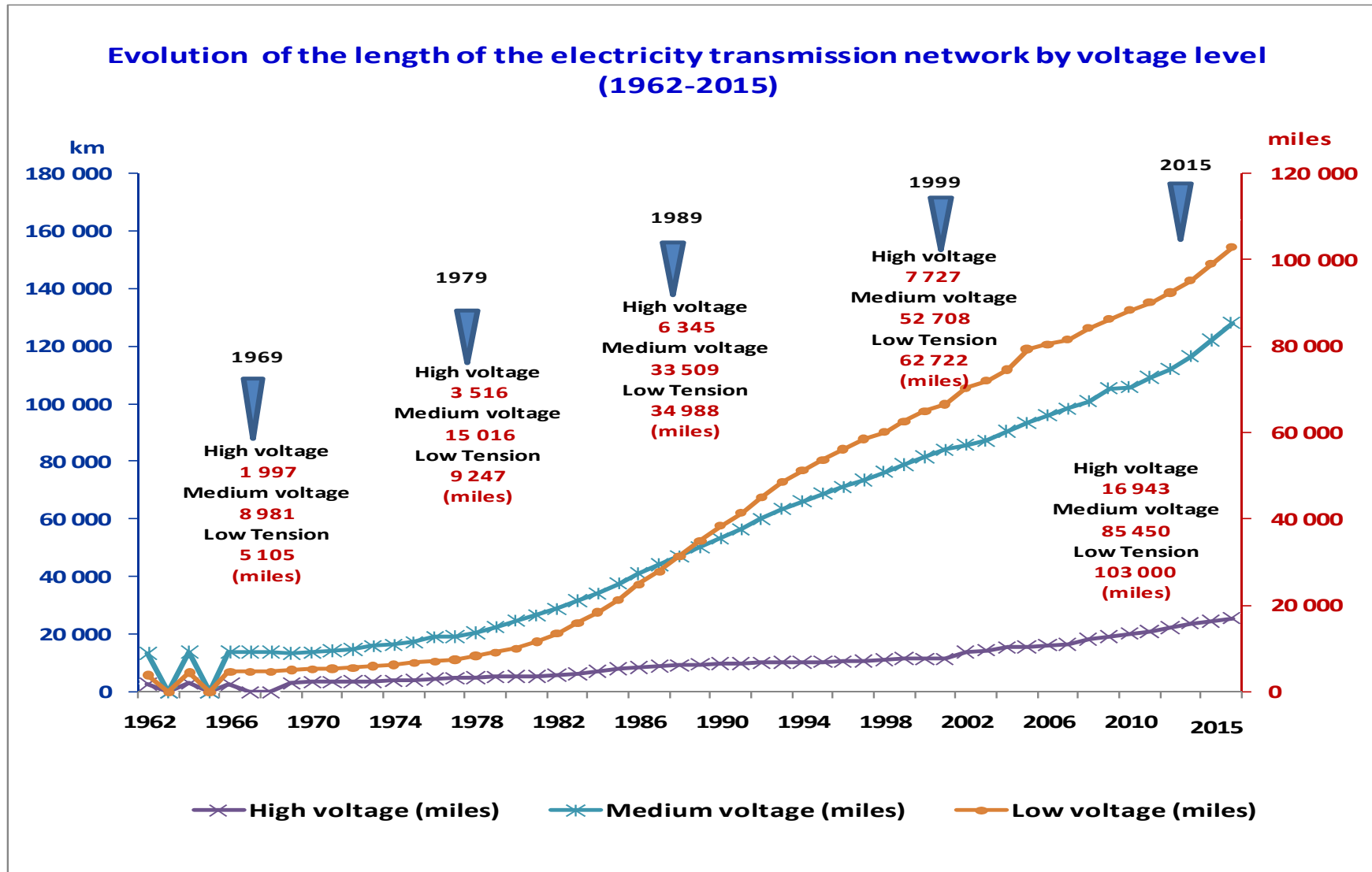
2. Evolution of electric and gas systems Period 1962 – 2015

Installed capacity by technology [Period 1962-2015 - MW]

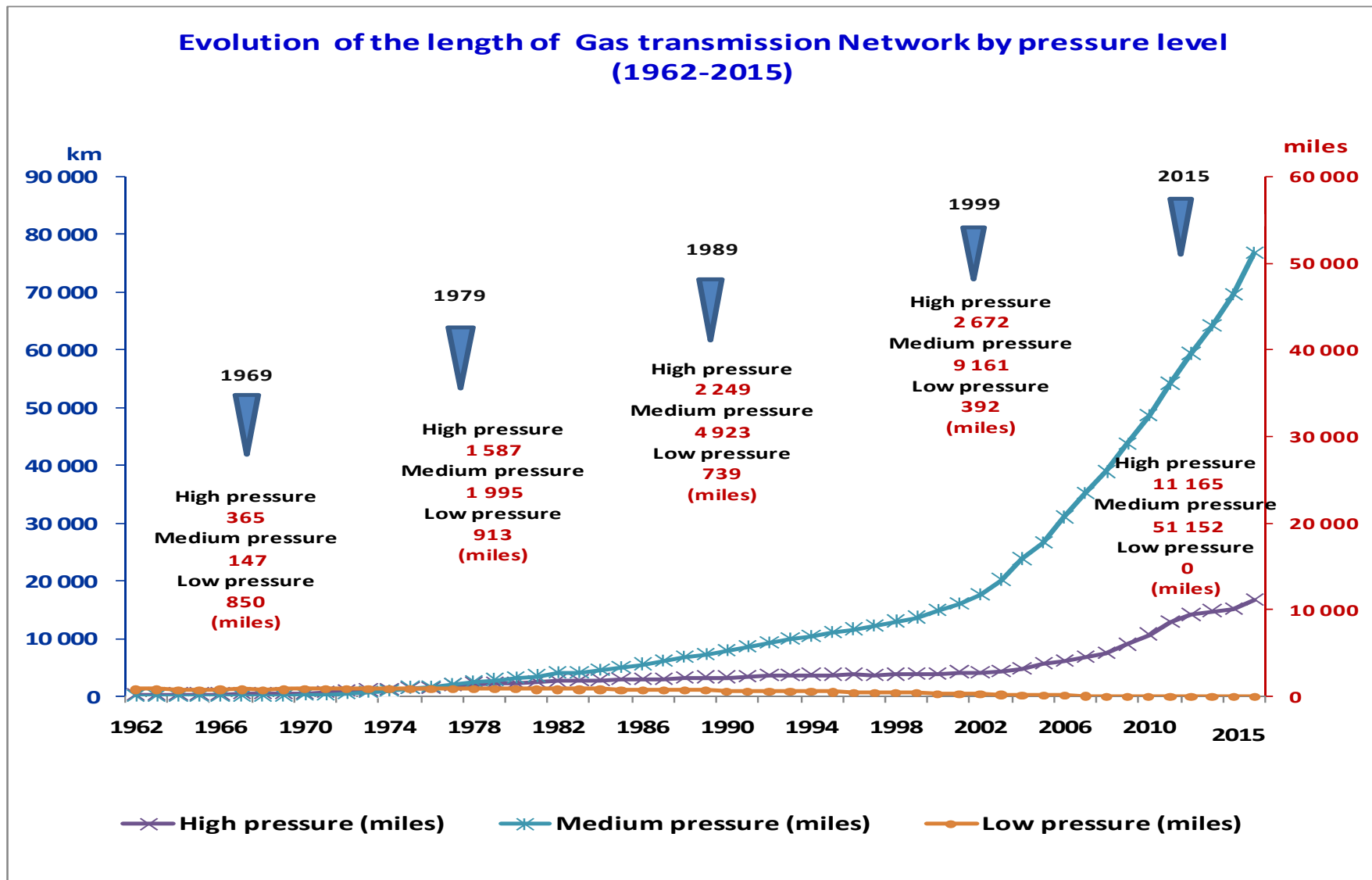
Evolution of installed capacity by technology
(1962 – 2015 (MW))



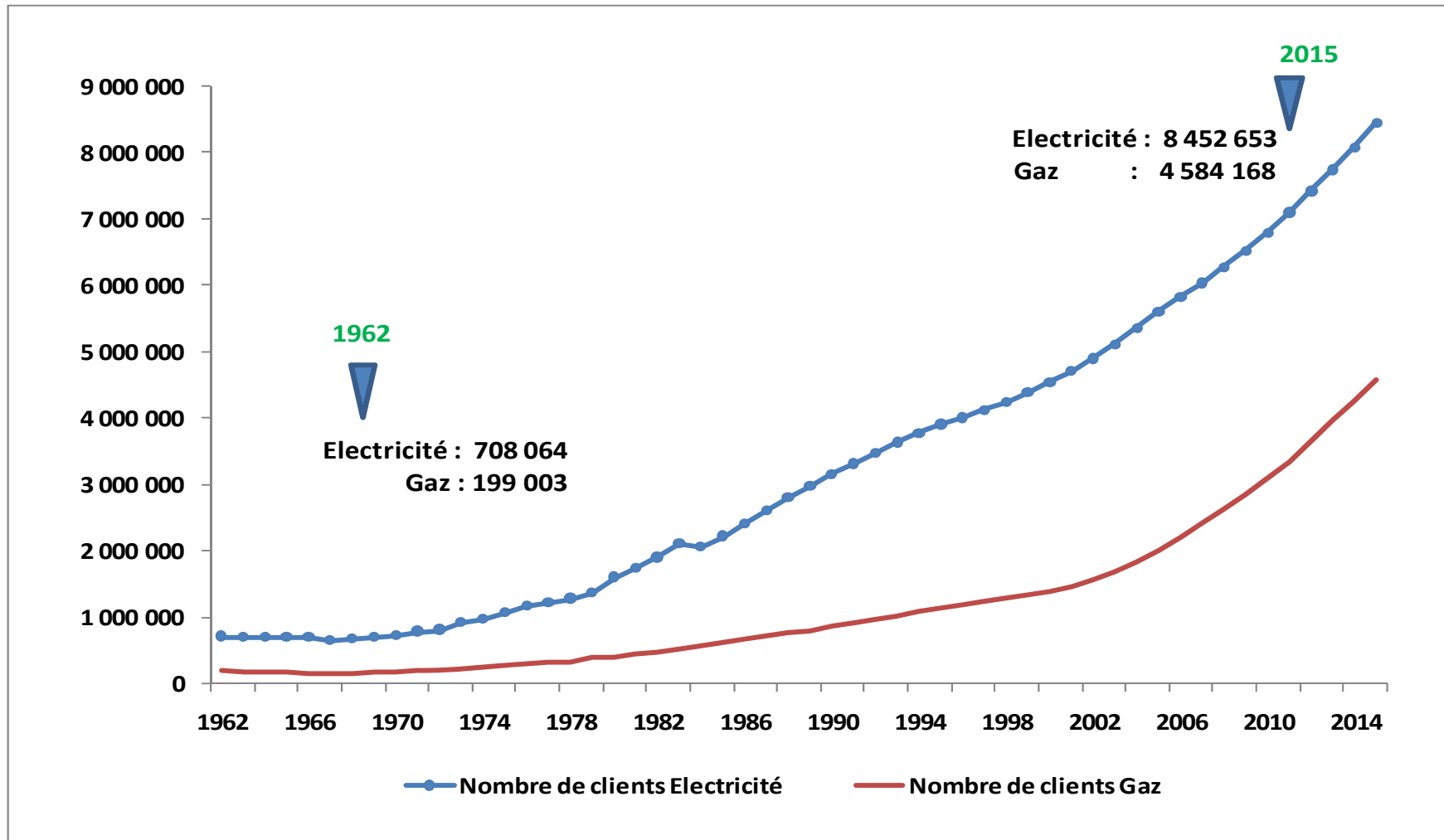
Evolution of the length of the electricity transmission network by voltage level [1962-2015 - mile and km]



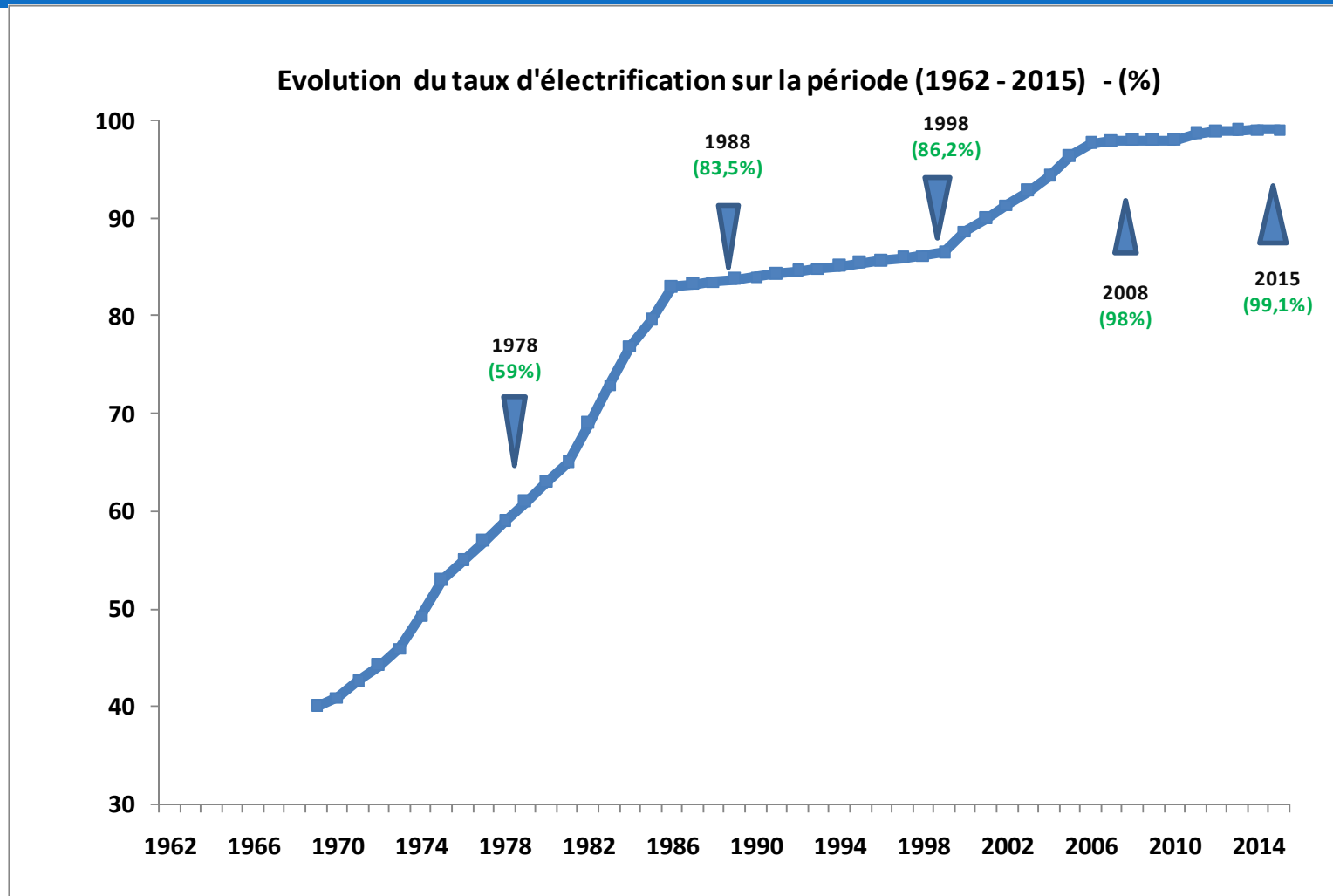
Evolution of the length of Gas transmission network by pressure level [1962-2015 – mile and km]



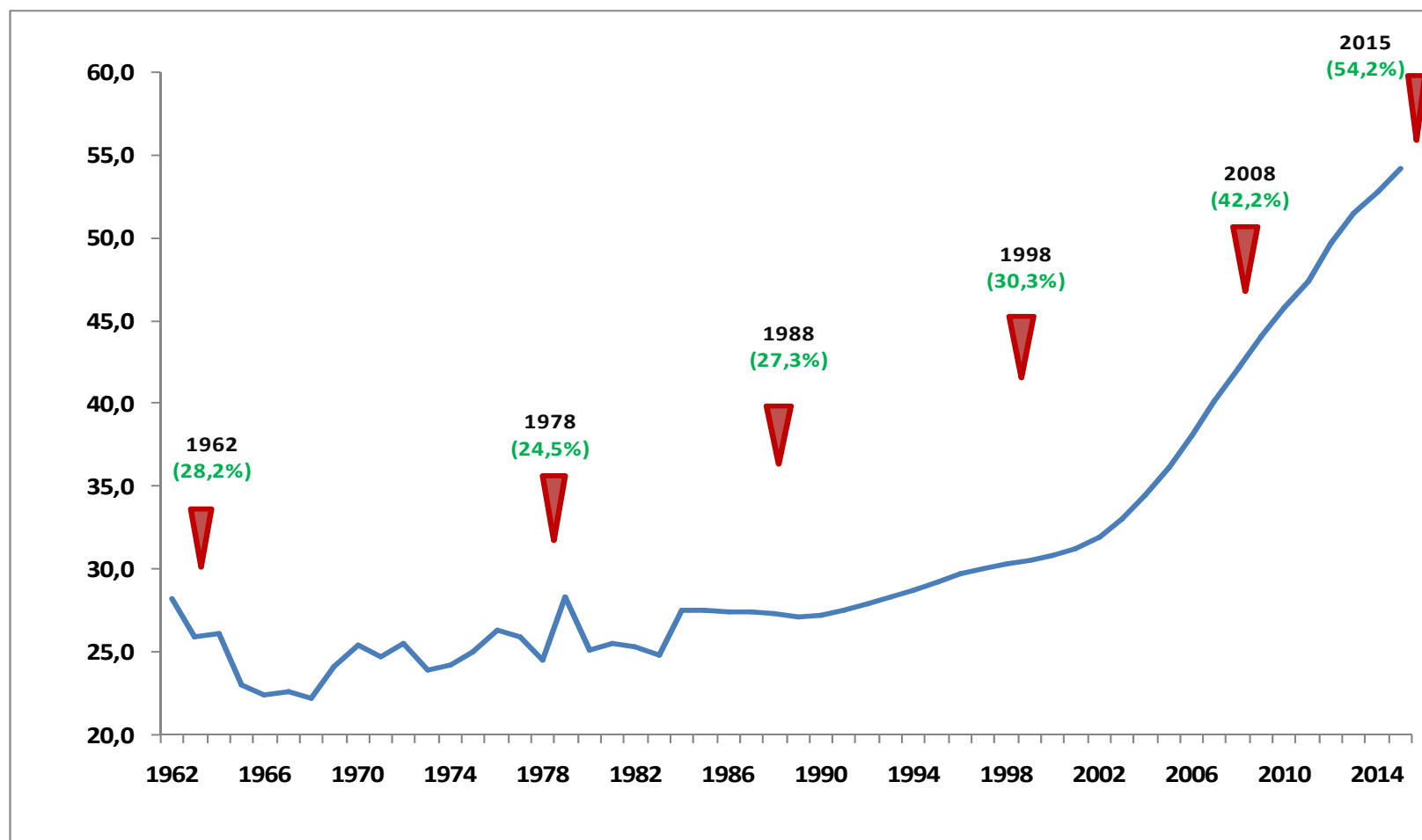
Evolution of Electricity and Gas customers [Periode 1962-2015]



Electrification rate [Period 1962-2015 (%)]



Gaz Penetration rate [Period 1962-2015 (%)]





3. Needs for Additional Capacities - Period : 2016-2025

Evolution of the National conventional Energy Capacities between 2016 and 2025

1/2

N°	Description	2015	2025
1	Installed Capacity (MW)	17 240	34 125
2	Electricity Network (Transmission & Distribution) (in Miles)	205 394	323 540
3	Electricity Substations [400, 220 & 60 kV] (in Unit)	398	795
4	Gas Network (Transportation & Distribution) (in Miles)	56 510	118 922
5	Number of Customers Electrical Power (in millions)	8,4	12
6	Number of Customers Gas (in millions)	4,5	8,0

Evolution of the National conventional Energy Capacities between 2016 and 2025

(2/2)

The Development of Electrical Power distribution Network for the period 2015-2025, will require :

- 115 062 Miles in lines;
- 67 850 substations, and;
- 2 728 110 connections.



The Development of Gas Distribution Network for the period 2014-2024, will require :

- 53 608 Miles of pipeline, and;
- 3 194 680 connections.



Development of Renewable Energy capacities over the period 2016-2025



	MW		
	2016-2020	2021-2025	2016-2025
PV	400	3600	4000
Wind	100	1400	1500
TOTAL	500	5500	5500

Realization in Partnership between Sonelgaz - Sonatrach - foreign partner

4. Industrial Development in realization in Partnership between the sectors of the energy- Industry and foreign partner 1/5

4.1 Preamble:

The strategy adopted by companies in the energy sector (including Sonelgaz) in partnership with the industry sector, is about implementing a series of industrial projects through partnership built upon enhancing local values as well as comparative benefits owned by our country.



4. Industrial Development in realization in Partnership between the sectors of the energy- Industry and foreign partner 2/5

4.2 Industrial Development Strategy

The development strategy consists of :

- Favoring national integration in terms of capabilities for studies, services, works and manufacture as well as execution of projects;
- Undertaking all initiatives aiming at develop national capabilities for studies, services, works and manufacture relevant to execution, operation and maintenance of structures;
- Developing the national and/or international partnership to favour the emergence of a national industrial network.



4. Industrial Development in realization in Partnership between the sectors of the energy- Industry and foreign partner 3/5

4.3 Industrial Development Support Tools

- ❑ Strategic Studies (technological choices relevant to national context, ..) ;
- ❑ Projects Design and Execution;
- ❑ Renewable Energies : Management and Studies for integration in the electricity Network;
- ❑ Manufacture of Equipment (most appropriate drivers to the value chain)
- ❑ R&D to support projects.

4. Industrial Development in realization in Partnership between the sectors of the energy- Industry and foreign partner

4/5

4.4 Structuring Technological Projects

- Manufacture of heat recovery steam generators and heat exchangers through national and international partnership;
- Manufacture of high voltage transformers through international partnership ;
- Manufacture of photovoltaic modules through international partnership ;
- Manufacture of MV cells, MV/LV - MV/MV substations, and monitoring/controlling systems through international partnership;
- Manufacture of HV insulators through international partnership.

4. Industrial Development in realization in Partnership between the sectors of the energy- Industry and foreign partner 5/5

4.4 Structuring Technological Projects (2/2)

Regarding other equipment, it will be :

- Preferred the creation of businesses through a **national and international partnership**
- Favored the emergence of local industries of equipment manufacture by **national companies, with or without, foreign partners.**

A special attention will be given to the maintenance of installations through localizing the manufacture of spare parts of different type, size and technology.



5. Project under realization : the GEAT Complex

Realization of the industrial complex for the manufacture of gas turbines, steam turbines, generators and associated control systems for combined cycle power plants.

The project aims the manufacture of complex technology equipment in Algeria, in partnership with [General Electric-Company USA](#).

Project Display :

- ◆ Plant n°1: Manufacture of 100 to 300 MW gas turbines;
- ◆ Plant n°2 : Manufacture of 50 to 160 MW steam turbines;
- ◆ Plant n°3: Manufacture of generators, which will be coupled to the turbines to convert mechanical energy into electrical energy;
- ◆ Plant n°4 : Control systems manufacturing to equip turbines manufactured in plants n°1 and n° 2.

5. Project under realization : the GEAT Complex

Project Main Data

- ❑ Name of the corporation: GENERAL ELECTRIC ALGERIA TURBINES "GEAT"
- ❑ Annual production level:
 - 06 to 08 gas turbines « GT»;
 - 03 to 04 steam turbines «ST»;
 - 09 to 12 Generators «Gen» ;
 - Control systems "CS" associated;
 - Auxiliaries of GT & ST.
- ❑ Investment amount: US \$ 205 million;
- ❑ Working capital US \$ 88 million;
- ❑ Contribution from shareholders 168 million US \$;
- ❑ Debt: \$ 125 million US (investment + working capital);
- ❑ Purchase guaranteed by subsidiaries of Sonelgaz four (04) GT, two (02) ST, six (06) generators and associated control systems for a period of ten (10) years;
- ❑ Jobs : 400 employees ;
- ❑ Distribution of share capital between shareholders Sonelgaz 51% - 49% GE



6. Finalized Partnership

- ❑ Creation in partnership with Hyundai/Daewoo of an Engineering, Procurement and Construction Company (HYENCO) able to undertake projects :
 - Conventional Power Plant, Steam Turbines, Gas Turbines and Combined Cycle
 - CSP, Wind and PV Plants
 - Others EPC's

7. Conclusion

The development strategy consists of :

- Favoring national integration in terms of capabilities for studies, services, works and manufacture as well as execution of projects;
- Undertaking all initiatives aiming at develop national capabilities for studies, services, works and manufacture relevant to execution, operation and maintenance of structures;
- Developing with the industrial sector, the national and/or international partnership to favour the emergence of a national industrial network.

Pursuing its mission as the driver for development in the electricity and gas sector, the strategy implemented by Sonelgaz through its subsidiaries, not only allows the availability of energy products under the best conditions of quality and service on the entire territory, but also ensures the optimization of energy costs and guarantees the national supply. Moreover, it develops supportive industries that create wealth and jobs.





Thank you for your attention

www.sonelgaz.dz