



Gas Regional Investment Plan
Southern Corridor
2012 - 2021
 Annex A : Country Profiles

Introduction

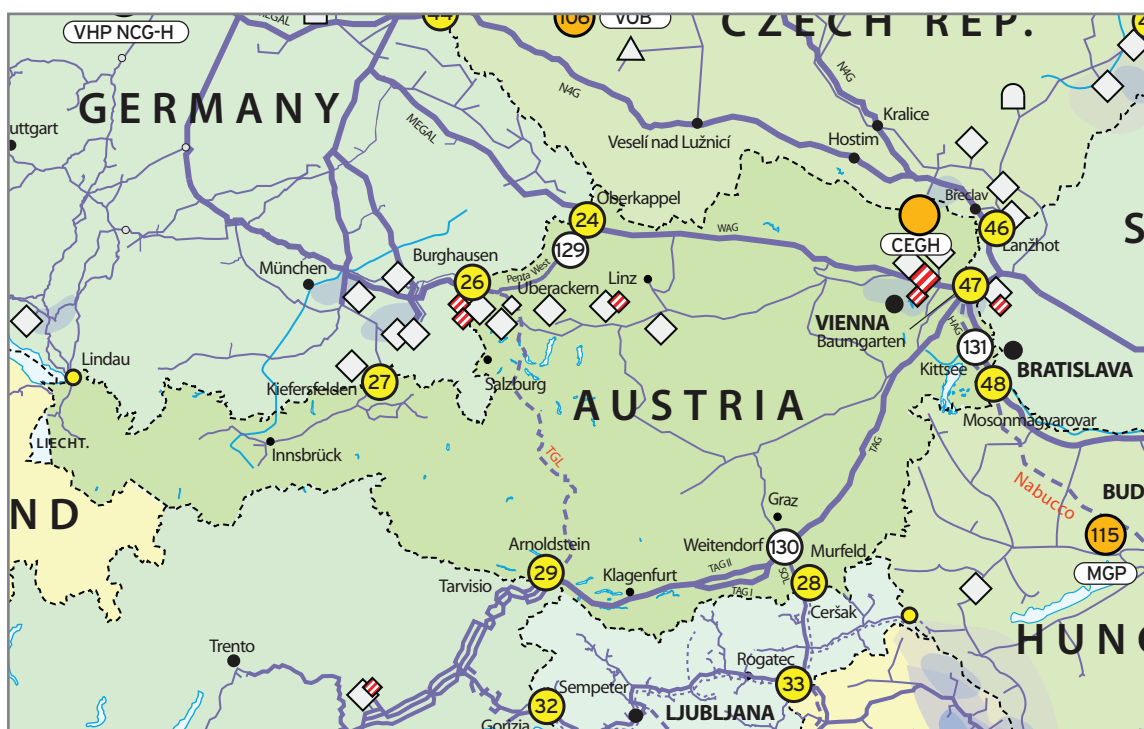
The following Country Profiles provide an overview of the existing gas infrastructure in each of the Southern Corridor GRIP countries as of December 2011. Most of the information was supplied by the respective TSOs.

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Austria





Existing Gas Infrastructure	
Number of TSO's	3
Total length of transmission network(s)	approx. 1,600 km
Total compressor power	551 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
GAS CONNECT AUSTRIA	<ul style="list-style-type: none"> Baumgarten / eustream (SK) Mosonmagyaróvár / FGSZ (HU) Petržalka / eustream (SK) Murfeld / Plinovodi (SI) Überackern / Bayernets (DE) Überackern / Wingas Transport (DE)
BOG	<ul style="list-style-type: none"> Oberkappel / Open Grid Europe (DE) Oberkappel / GRTgaz Deutschland (DE) Baumgarten / eustream (SK)
Trans Austria Gasleitung	<ul style="list-style-type: none"> Baumgarten / eustream (SK) Tarvisio-Arnoldstein / Snam Rete Gas (IT)
LNG Terminals	
	<ul style="list-style-type: none"> N/A
Storage facilities	
Interconnected DSOs <i>(All storage facilities are connected to the DSO network (except Haidach, which is connected to German networks). Domestic market capacity is managed by Austrian Gas Grid Management AG (AGGM) in its function as Manager of the Control Area East.)</i>	<ul style="list-style-type: none"> Schönkirchen Reyersdorf / GAS CONNECT AUSTRIA Tallesbrunn / GAS CONNECT AUSTRIA Thann / GAS CONNECT AUSTRIA Puchkirchen / RAG Haidach 5 / RAG Haidach / RAG/Wingas/Gazprom Export




Production facilities	
Interconnected DSs <i>(All production facilities are connected to the DSO network.)</i>	<ul style="list-style-type: none"> • 1 virtual entry point from OMV Austria Exploration & Production • 1 virtual entry point from RAG
Directly connected customers	
Interconnected DSs <i>(All production facilities are connected to the DSO network.)</i>	<ul style="list-style-type: none"> • Total: 0 • Gas-fired power plants: 0
Distribution systems SOs and total number of DSOs in the country	
GAS CONNECT AUSTRIA	<ul style="list-style-type: none"> • Number of physical TS-DS connections: 1 • Number of DSOs: 1
BOG	<ul style="list-style-type: none"> • Number of physical TS-DS connections: 6 • Number of DSOs: 1
Trans Austria Gasleitung	<ul style="list-style-type: none"> • Number of physical TS-DS connections: 10 • Number of DSOs: 1
Physical hubs and Virtual Trading Points	<ul style="list-style-type: none"> • CEGH / CEGH
Number of balancing zones	7
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> • 2010: 102,016 GWh • 2009: 91,542 GWh • 2008: 93,228 GWh • 2007: 88,418 GWh



GAS CONNECT AUSTRIA GmbH		
Website	www.gasconnect.at	
Current Publications	N/A	
Total length of the transmission network (this excludes distribution)	170 km Operated: approx. 1,600 km	
Total compressor power	22 MW	
Total transported energy (in gas)	2010: 87,931 GWh 2009: 78,301 GWh	

BOG GmbH		
Website	www.bog-gmbh.at	
Current Publications	N/A	
Total length of the transmission network (this excludes distribution)	320,5 km	
Total compressor power	121 MW	
Total transported energy (in gas)	2010: 108,415 GWh 2009: 113,000 GWh	

Trans Austria Gasleitung GmbH		
Website	www.taggmbh.at	
Current Publications	N/A	
Total length of the transmission network (this excludes distribution)	approx. 1,140 km	
Total compressor power	approx. 430 MW	
Total transported energy (in gas)	2010: 270,877 GWh 2009: 278,672 GWh	




Bulgaria



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	2,645 km
Total compressor power	Transmission: 263 MW Storage: 10 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
Bulgartransgaz	<ul style="list-style-type: none"> Negru Voda I & II / Transgaz (RO) Kula / DESFA (GR) Malkoclar / BOTAS (TK) Zidilovo / Makpetrol (MK)
LNG Terminals	
	<ul style="list-style-type: none"> N/A
Storage facilities	
Bulgartransgaz	<ul style="list-style-type: none"> UGS Chiren / Bulgartransgaz



Production facilities	
	<ul style="list-style-type: none"> N/A
Directly connected customers	
Bulgartransgaz	<ul style="list-style-type: none"> Total: 262 Gas-fired power plants: 0
Distribution systems SOs and total number of DSOs in the country	
Bulgartransgaz	<ul style="list-style-type: none"> Number of physical TS-DS connections: 65 Number of DSOs: 17
Physical hubs and Virtual Trading Points	<ul style="list-style-type: none"> N/A
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> 2010: 27,709 GWh 2009: 25,745 GWh 2008: 33,970 GWh 2007: 34,717 GWh
Ratio of transported energy over demand of the national market (for 2010)	5.6

Bulgartransgaz EAD (Single member joint-stock company)	
Website	www.bulgartransgaz.bg
Current Publications	N/A
Total length of the transmission network (this excludes distribution)	2,645 km
Total compressor power	Transmission: 263 MW Storage: 10 MW
Total transported energy (in gas) in 2010	154,213 GWh




Croatia



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	2,643 km
Total compressor power	N/A
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
Plinacro	<ul style="list-style-type: none"> Rogatec / Geoplin plinovodi Donji Miholjac / FGSZ
LNG Terminals	
	<ul style="list-style-type: none"> N/A
Storage facilities	
Plinacro	<ul style="list-style-type: none"> Podzemno Skladište Plina Okoli
Interconnected DSs	<ul style="list-style-type: none"> N/A



Production facilities	
Plinacro	<ul style="list-style-type: none"> • CPS Molve/Đurđevac /INA • CPS Etan/Ivanid- Grad/ INA • offshore platforms/Pula terminal/ INA
Directly connected customers	
Plinacro	<ul style="list-style-type: none"> • Total: 23 • Gas-fired power plants: 5
Distribution systems SOs and total number of DSOs in the country	
Plinacro	<ul style="list-style-type: none"> • Number of physical TS-DS connections: 151 • Number of DSOs: 38
Physical hubs and Virtual Trading Points	• N/A
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> • 2010: 31,271 GWh • 2009: 29,135 GWh • 2008: 33,000 GWh • 2007: 33,037 GWh
Ratio of transported energy over demand of the national market (for 2010)	1.1

PLINACRO d.o.o. d.o.o. = Limited Liability Company	 <p>plinacro L.T.D. GAS TRANSMISSION SYSTEM OPERATOR</p>
Website	www.plinacro.hr
Current Publications	5-year Network Development Plan
Total length of the transmission network (this excludes distribution)	2,643 km
Total compressor power	N/A
Total transported energy (in gas) in 2010	35,706 GWh




Greece



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	1,218 km
Total compressor power	15.4 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
DESFA	<ul style="list-style-type: none"> Sidirokastron / Bulgartransgaz (BG) Kipi / Botas (TK)
LNG Terminals	
	<ul style="list-style-type: none"> LNG Terminal at Revythoussa
Storage facilities	
	<ul style="list-style-type: none"> N/A



Production facilities	
DESFA	• N/A
Directly connected customers	
DESFA S.A.	<ul style="list-style-type: none"> Total: 37 Gas-fired power plants: 9
Distribution systems SOs and total number of DSOs in the country	
DESFA S.A.	<ul style="list-style-type: none"> Number of physical TS-DS connections: 30 Number of DSOs: 4 (DEPA and 3 Local DSOs)
Physical hubs and Virtual Trading Points	• -
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> 2010: 41,500 GWh 2009: 37,284 GWh 2008: 44,522 GWh 2007: 42,629 GWh
Ratio of transported energy over demand of the national market (for 2010)	1.0

DESFA S.A. (Société Anonyme)	
Website	www.desfa.gr
Current Publications	<ul style="list-style-type: none"> 10-year Network Development Study (mandatory) 5-year Network Development Plan (mandatory)
Total length of the transmission network (this excludes distribution)	1,218 km
Total compressor power	15.4 MW
Total transported energy (in gas) in 2010	41,500 GWh


Hungary



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	5,783km
Total compressor power	231 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
FGSZ	<ul style="list-style-type: none"> Bregdaróc/ Ukrtransgas (UA) Mosonmagyaróvár/ GAS CONNECT AUSTRIA (AT) Kiskundorozsma/ Srbijagas (RS) Csanádpalota/ Transgaz (RO) Drávaszerdahely/Plinacro (HR)
LNG Terminals	
	<ul style="list-style-type: none"> N/A
Storage facilities	
FGSZ	<ul style="list-style-type: none"> Zsana / E.ON Földgáz Storage Hajdúszoboszló / E.ON Földgáz Storage Pusztaderics / E.ON Földgáz Storage Kardoskút / E.ON Földgáz Storage Szőreg-I / MMBF



Production facilities	
FGSZ	<ul style="list-style-type: none"> • Algyő III / MOL • Babócsa / MOL • Endrőd / MOL • Hajdúszoboszló / MOL • Karcag II (Bucsa) / MOL • Pusztaederics / MOL • Szank / MOL • Kardoskút regional/ MOL • Kenderes II inert / MOL • Babócsa regional/ MOL • Tiszavasvári II / HHE North
Directly connected customers	
FGSZ Ltd.	<ul style="list-style-type: none"> • Total: 40 • Gas-fired power plants: 14
Distribution systems SOs and total number of DSOs in the country	
FGSZ Ltd.	<ul style="list-style-type: none"> • Number of physical TS-DS connections: 356 • Number of DSOs: 9
Physical hubs and Virtual Trading Points	<ul style="list-style-type: none"> • MGP I / FGSZ • MGP II / FGSZ
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> • 2010: 124,629 GWh • 2009: 116,901 GWh • 2008: 135,683 GWh • 2007: 138,556 GWh
Ratio of transported energy over demand of the national market (for 2010)	1.2

FGSZ Ltd. (Natural Gas Transmission Company Limited by Shares)		 <p>NATURAL GAS TRANSMISSION MEMBER OF THE MOL GROUP</p>
Website	www.fgsz.hu	
Current Publications	<ul style="list-style-type: none"> • 10-year Network Development Plan (voluntary) • Winter Outlook (voluntary) • Summer Outlook (voluntary) 	
Total length of the transmission network (this excludes distribution)	5,783 km	
Total compressor power	231 MW	
Total transported energy (in gas) in 2010	148,103 GWh	



Italy




Existing Gas Infrastructure	
Number of TSO's	10
Total length of transmission network(s)	33768 Km
Total compressor power	860 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
Snam Rete Gas	<ul style="list-style-type: none"> • Passo Gries/ FluxSwiss (CH) • Passo Gries / Swissgas (CH) • Tarvisio / TAG (AT) • Gorizia / Plinovodi (SI) • Gela / Greenstream (LY) • Mazara del Vallo / TPMC (TN) • Bizzarone / DSO (CH) • San Marino / DSO (SM)
LNG Terminals	
Snam Rete Gas	<ul style="list-style-type: none"> • Panigaglia / GNL Italia • Cavarzere / Adriatic LNG (Snam Rete Gas markets the entry point capacity)
Storage facilities (Interconnected to the national network through two virtual entry-exit points: Stogit hub and Edison Stoccaggio hub)	
Snam Rete Gas	<ul style="list-style-type: none"> • Brugherio / Stogit • Cortemaggiore / Stogit • Fiume Treste / Stogit • Minerbio / Stogit • Ripalta / Stogit • Sabbioncello / Stogit • Sergnano / Stogit • Settala / Stogit
Società Gasdotti Italia	<ul style="list-style-type: none"> • Cellino / Edison Stoccaggio • Collalto / Edison Stoccaggio
Production facilities	
Snam Rete Gas	<ul style="list-style-type: none"> • Casteggio • Caviaga • Fornovo • Ovanengo • Piacenza Ovest • Pontetidone • Quarto • Rivolta d'Adda • Soresina • Trecate • Casalborsetti • Collalto • Medicina • Montenevoso • Muzza • Ravenna Mare • Ravenna Mare Lido Adriano • Santerno • Spilamberto B.P. • Vittorio V. (S. Antonio) • Rubicone • Falconara • Fano



Production facilities (continued)	
Snam Rete Gas	<ul style="list-style-type: none"> • Capparuccia • Carassai • Cellino • Grottammare • Montecosaro • Pineto • S. Giorgio M. • San Benedetto T. • Settefinestre/Passatempo • Fonte Filippo • Larino • Ortona • Poggiofiorito • Reggente • S. Stefano M. • Candela • Roseto/T. Vulgano • Torrente Tona • Calderasi/Monteverdese • Metaponto • Monte Alpi • Pisticci A.P./ B.P. • Sinni (Policoro) • Crotone • Hera Lacinia • Bronte • Comiso • Gagliano • Mazara/Lippone • Noto
Directly connected customers	
Snam Rete Gas	<ul style="list-style-type: none"> • Total: 6 • Gas-fired power plants <ul style="list-style-type: none"> - Number: 125 plants (<i>plus 3 connected to other TSOs</i>)
Distribution systems SOs and total number of DSOs in the country	
Snam Rete Gas	<ul style="list-style-type: none"> • Number of physical TS-DS connections: around 3,500 • Number of DSOs: 237 (<i>Source: AEEG Annual Report, 2011; this may include DSOs not directly connected to Snam Rete Gas' network</i>)
Physical hubs and Virtual Trading Points	<ul style="list-style-type: none"> • Punto di Scambio Virtuale (PSV) / Snam Rete Gas
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> • 2010: 879,444 GWh • 2009: 825,758 GWh • 2008: 898,313 GWh • 2007: 898,525 GWh
Ratio of transported energy over demand of the national market (for 2010)	1.0



Snam Rete Gas S.p.A. (Società per Azioni – Joint Stock Company)		 SNAM RETE GAS
Website	www.snamretegas.it	
Current Publications	<ul style="list-style-type: none"> Development Plan of SRG Network - Ten year basis (mandatory) 	
Total length of the transmission network (this excludes distribution)	31.680 km	
Total compressor power	860 MW	
Total transported energy (in gas)	2010: 881,739 GWh 2009: 813,924 GWh	

Edison Stoccaggio S.p.A. (Società per Azioni – Joint Stock Company)		
Website	www.edisonstoccaggio.it	
Current Publications	Not available ¹	
Total length of the transmission network (this excludes distribution)	83 km	
Total compressor power	0	
Total transported energy (in gas)² in 2010	2010: 74,727 GWh	

[1] The Development Plan of Edison Stoccaggio is currently under evaluation.

[2] Gas transported by Edison Stoccaggio is delivered to Snam Rete Gas network.




Romania



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	13,000 km
Total compressor power	30 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
TRANSGAZ	<ul style="list-style-type: none"> • Csanadpalota / FGSZ (HU) • Isaccea I / Ukrtransgaz (UA) • Isaccea II / Ukrtransgaz (UA) • Isaccea III / Ukrtransgaz (UA) • Isaccea IV / Ukrtransgaz (UA) • Mediesu Aurit / Ukrtransgaz (UA) • Negru Voda I / BULGARTRANSGAZ (BG) • Negru Voda II / BULGARTRANSGAZ (BG) • Negru Voda III / BULGARTRANSGAZ (BG)
LNG Terminals	
	<ul style="list-style-type: none"> • N/A



Storage facilities	
TRANSGAZ	<ul style="list-style-type: none"> Sarmas / SNGN Romgaz Balaceanca / SNGN Romgaz Bilciuresti / SNGN Romgaz Cetatea de Balta / SNGN Romgaz Ghercesti / SNGN Romgaz Urziceni / SNGN Romgaz Tg. Mures / DEPOMURES Nades- Prod - Seleus / TENGAZ
Interconnected DSs:	<ul style="list-style-type: none"> 39
Production facilities	
TRANSGAZ	<ul style="list-style-type: none"> 110 entry points / SNGN Romgaz 42 entry points / OMV Petrom 5 entry points / Amromco Energy 1 entry point / Raffles Energy 1 entry point / Lotus Petrol
Directly connected customers	
TRANSGAZ	<ul style="list-style-type: none"> Total: 249 Gas-fired power plants: 18
Distribution systems SOs and total number of DSOs in the country	
TRANSGAZ	<ul style="list-style-type: none"> Number of physical TS-DS connections: 805 Number of DSOs: 39
Physical hubs and Virtual Trading Points	N/A
Number of balancing zones	N/A
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> 2010: 146,762 GWh 2009: 122,830 GWh 2008: 146,721 GWh 2007: 152,218 GWh
Ratio of transported energy over demand of the national market (for 2010)	Not available (transit volume are not disclosed, part of the consumed gas is not transported through the Transgaz network.)

Societatea Nationala De Transport Gaze Naturale "TRANSGAZ" SA. (Societate pe Actiuni; Joint Stock Company)		
Website	www.transgaz.ro	
Current Publications	1-year Network Development Plan (voluntary)	
Total length of the transmission network (this excludes distribution)	13,000 km	
Total compressor power	30 MW	
Total transported energy (in gas) in 2010	131,005 GWh	




Slovakia



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	2,270 km
Total compressor power	1,000 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
Eustream	<ul style="list-style-type: none"> • Velké Kapušany / Naftogas • Lanžhot / NET4GAS • Baumgarten / Baumgarten-Oberkappel Gasleitungsgesellschaft m.b.H • Baumgarten / GAS CONNECT AUSTRIA GmbH • Baumgarten / Trans Austria Gasleitung GmbH
LNG Terminals	
	• N/A
Storage facilities	
Eustream	<ul style="list-style-type: none"> • Láb / NAFTA a.s. • Dolní Bojanovice / SPP Bohemia a.s.
SPP – distribúcia, a.s.	• Láb / NAFTA a.s.



Production facilities	
	• NAFTA a.s.
Directly connected customers	
Eustream	• Total: 0 • Gas-fired power plants: N/A
Distribution systems SOs and total number of DSOs in the country	
Eustream	• Number of physical TS-DS connections: 5 • Number of DSOs: 49
Physical hubs and Virtual Trading Points	N/A
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	• 2010: 56,253 GWh • 2009: 52,356 GWh • 2008: 56,561 GWh • 2007: 57,131 GWh
Ratio between transported energy over demand of the national market (for 2010)	13.2

eustream, a.s.		
Website	www.eustream.sk	
Current Publications	N/A	
Total length of the transmission network (this excludes distribution)	2,270 km	
Total compressor power	1,000 MW	
Total transported energy (in gas)	2010: 743,869 GWh 2009: 692,600 GWh	




Slovenia



Existing Gas Infrastructure	
Number of TSO's	1
Total length of transmission network(s)	1.054 km
Total compressor power	16 MW
Inter-TSO connections where capacity is marketed (incl. upstream operators)	
Plinovodi	<ul style="list-style-type: none"> • Murfeld / GAS CONNECT AUSTRIA • Rogatec / Plinacro • Gorizia / Snam Rete Gas
LNG Terminals	
	• 0
Storage facilities	
	• 0



Production facilities	
	• 0
Directly connected customers	
	<ul style="list-style-type: none"> Total: 156 Gas-fired power plants: 2
Distribution systems SOs and total number of DSOs in the country	
	<ul style="list-style-type: none"> Number of physical TS-DS connections: 107 Number of DSOs: 17
Physical hubs and Virtual Trading Points	N/A
Number of balancing zones	1
Demand	
Historical annual gas demand of the national market (final customers)	<ul style="list-style-type: none"> 2010: 11.057 GWh 2009: 10.673 GWh 2008: 11.296 GWh 2007: 11.760 GWh
Ratio between transported energy over demand of the national market (for 2010)	2.0

Plinovodi d.o.o.	
 Plinovodi Connected through energy	
Website	www.plinovodi.si
Current Publications	TYNDP 2011-2020
Total length of the transmission network (this excludes distribution)	1.054 km
Total compressor power	16 MW
Total transported energy (in gas)	21.513 GWh





BULGARTRANGAZ®



Hellenic Gas Transmission System Operator S.A.



EDISON

Edison Stocaggio Spa



SLOVAK GAS TSO



NATURAL GAS TRANSMISSION
MEMBER OF THE MOL GROUP



GAS CONNECT
AUSTRIA



GAS TRANSMISSION SYSTEM OPERATOR



Plinovodi
Connected through energy



SNAM RETE GAS

TAG

Trans Austria Gasleitung GmbH



TRANSGAZ
MAGISTRALA ENERGIEI



Image courtesy of SNAM Rete Gas

Southern Corridor GRIP 2012 - 2021

Coordinating TSO: DESFA

Messogeion ave. 357-359

GR-15231 HALANDRI/GREECE

e-mail: desfa@desfa.gr



Avenue de Cortenbergh 100 • 1000 Brussels • T +32 2 209 05 00 • info@entsog.eu • www.entsog.eu