Energy Union Choices

Evaluation of security of supply and gas infrastructure needs in NSI East

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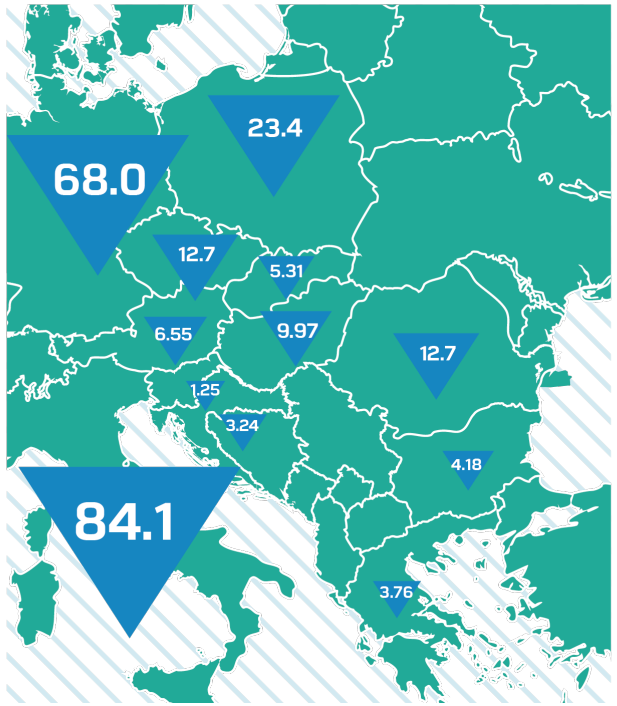
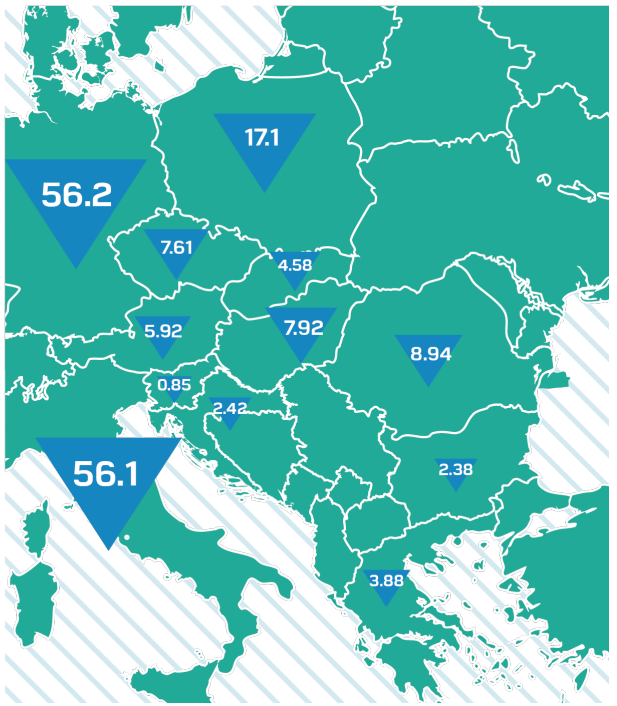
Approach and Methodology

SCENARIOS Gas demand in NSI East	ENTSO-G BLUE TRANSITION 235 bcm	COM PRIMES EE30 174 bcm
EXISTING INFRASTRUCTURE	STANDARD CASE + RUSSIAN DISRUPTION CASE	
EXISTING INFRASTRUCTURE + FDI and 7 CESEC projects		

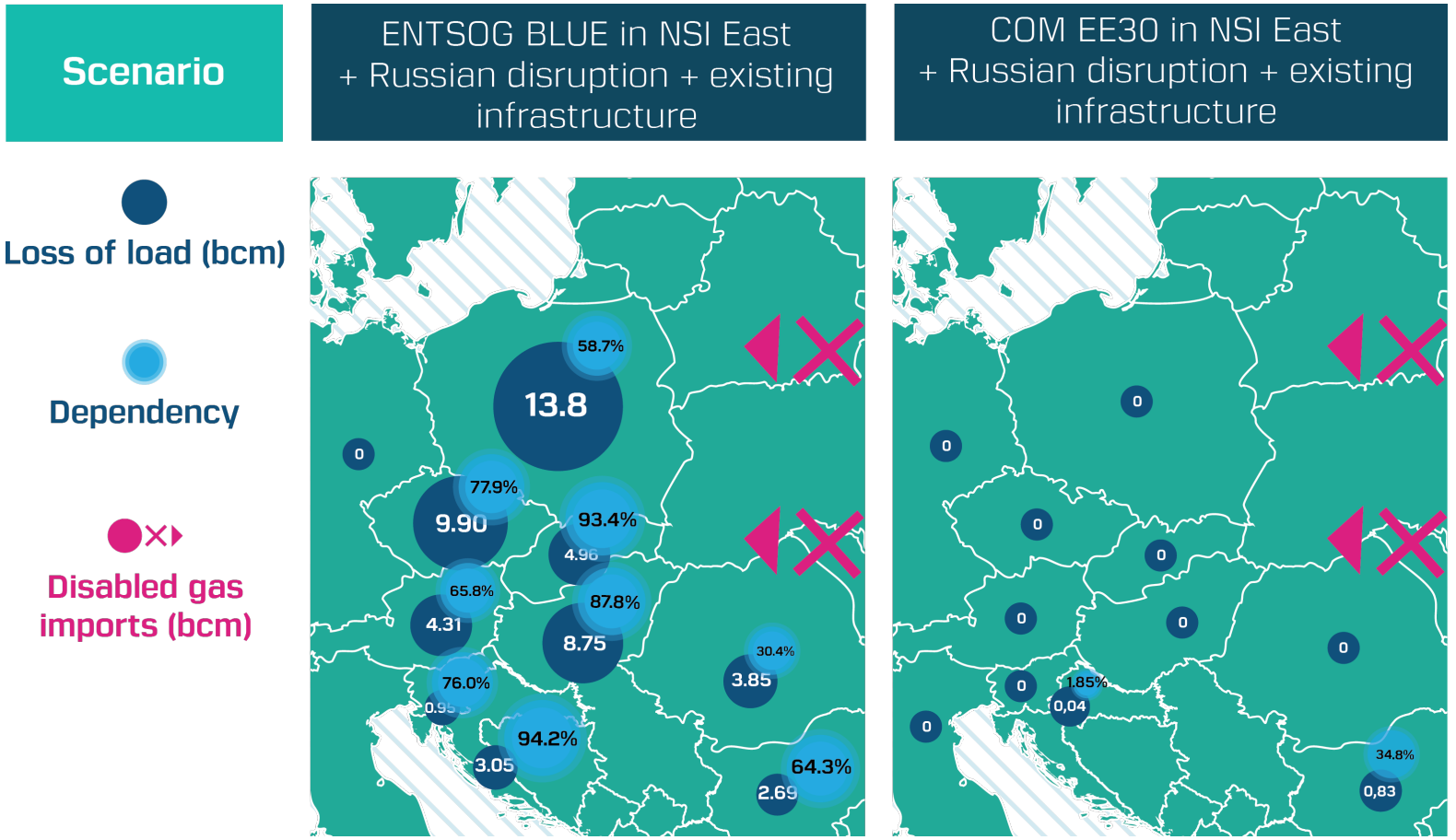
Gas demand differs significantly depending assumptions on energy efficiency

Projections of gas demand differ up to 75 bcm depending on progress towards the EU's climate and energy goals for 2030

Scenario	ENTSOG BLUE: 235 bcm Gas Demand in NSI East	COM EE30: 174bcm Gas Demand in NSI East
Gas Demand (bcm)		

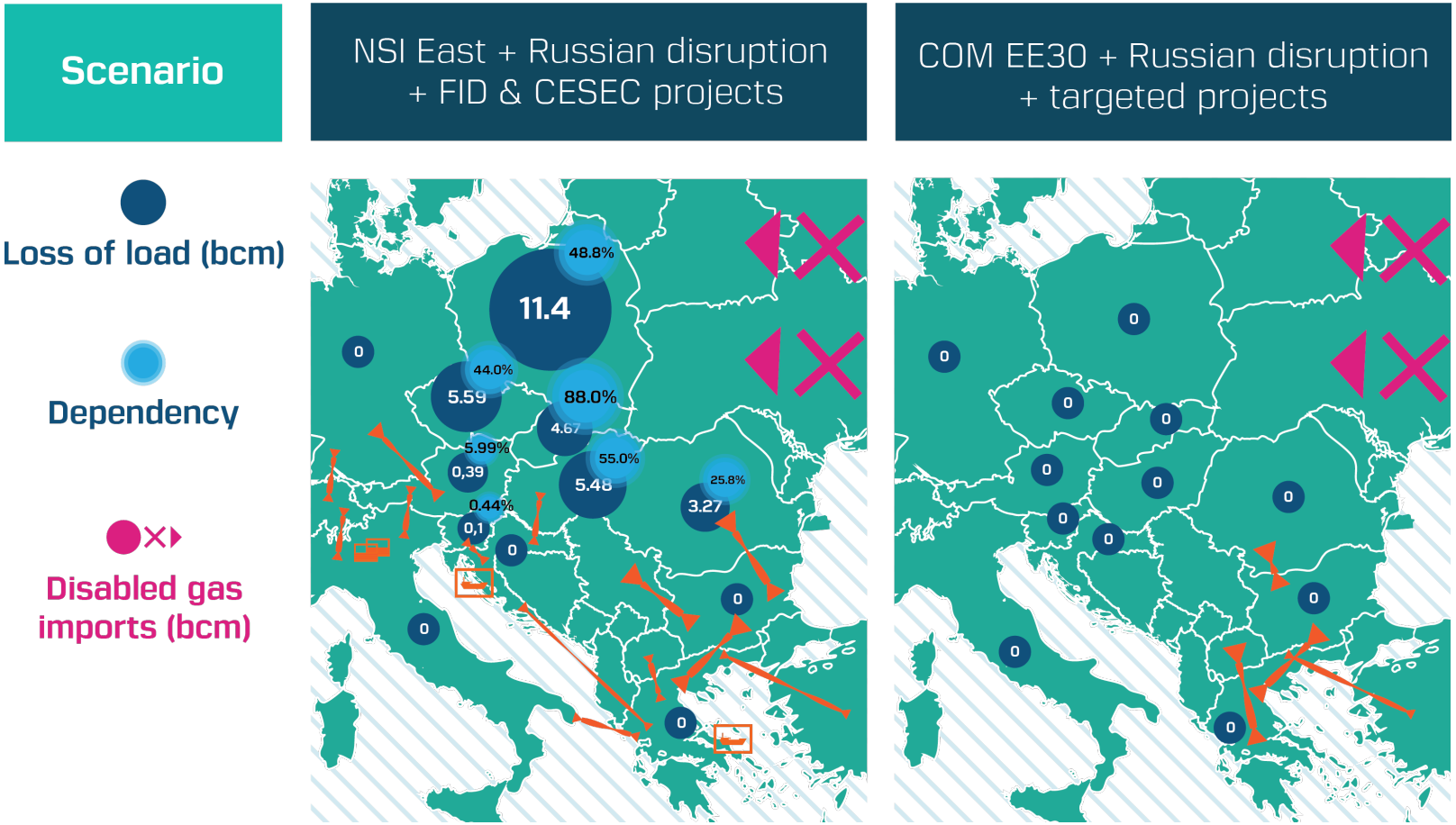
EU climate and energy policy greatly reduces gas security of supply concerns in NSI East region

In case of a year-long Russian gas import disruption case, existing infrastructure already significantly reduces loss of load issues. In EE30 scenario this is limited to Croatia and Bulgaria.



Targeted infrastructure projects can significantly improve gas supply security, but only if combined with demand moderation policies.

In a low demand scenario, two intra-EU gas infrastructure projects solve loss of load concerns. Without these demand moderation policies, even full implementation of current PCI lists is insufficient.



Overview of utilisation rates of additional infrastructure in case of Russian gas disruption case

LNG Terminal	CESEC Priority	Added send-out capacity	ENTSOG Blue	COM EE30
Revythoussa (Greece)		2 bcm/y	100%	0%
Krk (Croatia)	✓	4 bcm/y	100%	0%

Gas Storage	CESEC Priority	Additional withdrawal capacity	ENTSOG Blue	COM EE30
Bordolano (IT)		7 bcm/y	100%	0%
Stogit Enhancements (IT)		7 bcm/y	100%	0%

Gas Imports	CESEC Priority	Added import capacity	ENTSOG Blue	COM EE30
Turkey <-> Greece	✓	22 bcm/y	64%	4%

Additional infrastructure utilisation rates in Russian gas disruption case

Transmissions	CESEC Priority	Added capacity	ENTSOG Blue	COM EE30
Austria <-> Germany		20 bcm/y	0%	0%
Bulgaria <-> Romania		0.5 bcm/y	100%	24%
Bulgaria <-> Serbia	✓	2.4 bcm/y	95%	0%
Switzerland <-> Germany		19 bcm/y	100%	0%
Greece <-> Bulgaria	✓	17 bcm/y	49%	10%
Greece <-> Croatia	✓	5 bcm/y	100%	0%
Greece <-> Italy	✓	11 bcm/y	100%	0%
Greece <-> FYRM	✓	1.7 bcm/y	54%	64%
Croatia <-> Slovenia		4.9 bcm/y	55%	0%
Italy <-> Austria		6.4 bcm/y	100%	0%
Italy <-> Switzerland		27 bcm/y	53%	0%
Croatia <-> Hungary	✓	3.1 bcm/y	100%	0%

Overview of finding

		ENTSOG Blue Transition	COM EE30
Standard case		No loss of load	No loss of load
In case of Russian disruption	with existing infrastructure	Loss of load across all NSI East countries	Loss of load limited to Bulgaria and Croatia
	with existing infrastructure and new priority projects	Decreased, but significant loss of load remains in some countries	No loss of load
Assessed need for infrastructure		• Additional infrastructure needs, beyond existing and planned projects • Only part of priority projects is needed in full	• Current infrastructure plans remove all problems. • No additional infrastructure needs beyond that

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Thank you!