

CROATIA

KEY FACTS:

- Gas demand in Croatia fell by 5% between 2010 and 2017
- Croatia plans to significantly increase its use of gas for power generation in the next years
- Major PCI cluster project including an LNG terminal on the island of Krk: Faces several delays but is still likely to be built despite its necessity being contested
- Large renewables and energy efficiency potential

1. GAS DEMAND

According to EU data:¹

- Gas represented 25% of Croatia's energy mix in 2016.
- Croatia consumed around 2.64bcm of gas in 2016
- Gas demand in Croatia dropped by 5% between 2010 and 2017²

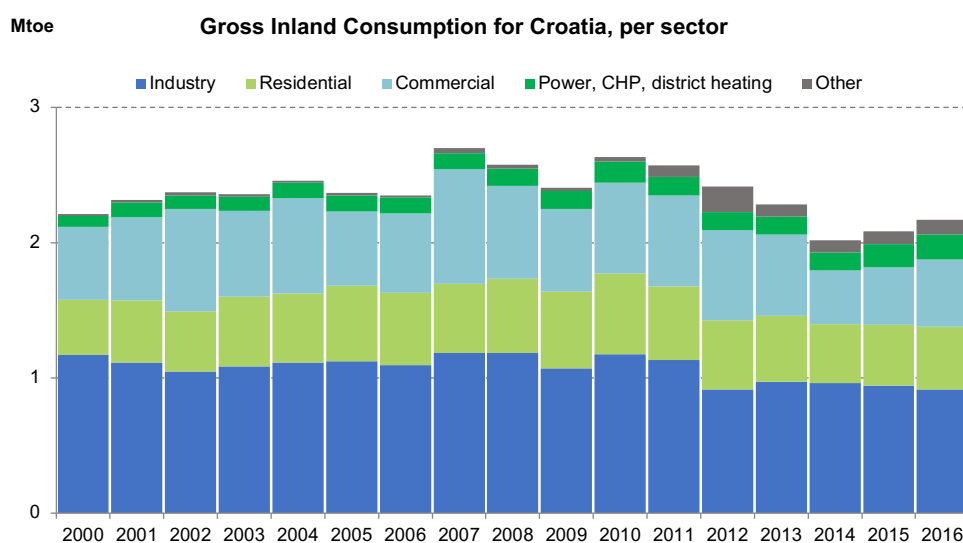
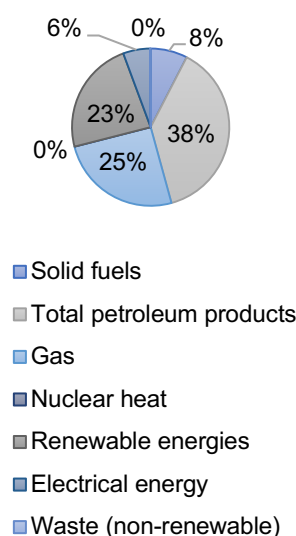


Figure 1: Croatia 2016 Energy Mix



2. GAS SUPPLY

While domestic gas production decreased in Croatia by 42% from 2007 to 2016 and continued to decrease after that.³ Croatia therefore **needs to import a growing share of the gas it consumes**⁴.

For a long time, this residual amount was almost entirely imported from Russia with a little bit from Italy and Slovenia. However, the construction of the bidirectional Városföld–Slobodnica pipeline between Croatia and Hungary in 2011⁵ significantly changed the situation and has since allowed Croatia to diversify its suppliers, with imports from Italy, Hungary, Germany, France, Austria and Kazakhstan. Besides domestic production, through pipeline connections with Slovenia and Hungary, Croatia could already now import three times the amount of gas it consumes annually.⁶

In 2015 Croatia started to award **offshore exploration** and drilling licenses in the Adriatic Sea,⁷ however, the new government, partly thanks to public opposition and for example the NGO coalition S.O.S Adriatic⁸, **stopped the drilling plans in 2016**, arguing that they would harm the country's lucrative tourist industry. There are currently no more plans for drilling.⁹ Nevertheless, contracts for onshore gas exploration have

¹ E3G compilation of data extracted from Eurostat

² http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_cb_gas&lang=en

³ Eurostat: http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_103m&lang=en

⁴ <https://www.total-croatia-news.com/business/31712-croatia-increasingly-depended-on-imported-gas>

⁵ https://bbj.hu/business/gas-pipeline-between-croatia-and-hungary-is-now-operational_59329

⁶ http://www.foeeurope.org/sites/default/files/extractive_industries/2018/pipedream-debunking-myths-croatias-krk-gas-terminal.pdf

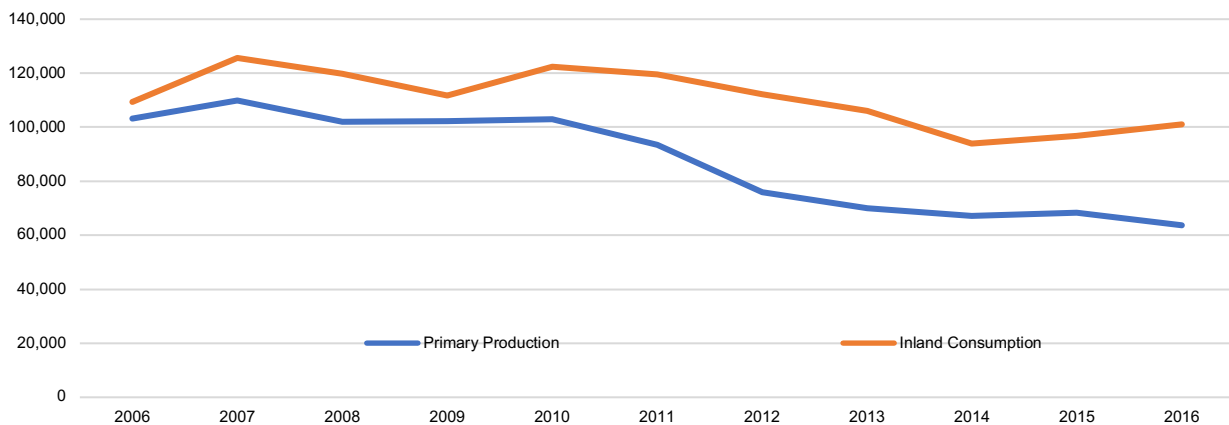
⁷ <http://www.reuters.com/article/croatia-energy-exploration-idUSL6N0UH0Y620150102>

⁸ <http://soszajadran.hr/en/2016/01/26/s-o-s-adriatic-the-new-croatian-government-must-completely-abandon-the-drilling-project-in-the-adriatic-and-make-a-shift-towards-renewable-energy/>

⁹ http://www.ansamed.info/nuova_europa/en/news/sections/news/2016/01/22/croatia-stops-gas-and-oil-drilling-in-the-adriatic-sea_32d1f045-9667-4da4-8b87-f61f4a17e4b4.html

been signed in 2016.¹⁰ In 2018, Croatia opened a 2nd tender for oil and gas exploration and extraction offering seven sites.¹¹

Croatia: Primary production vs. Domestic consumption (in TJ)



3. GAS INFRASTRUCTURE

Over the years, the Croatian gas market began transitioning to an exit/entry model while opening up to neighboring countries such as Hungary through interconnectors. The main import interconnections are now with Hungary (capacity of 2.6bcm/y HR → HU and 1.7bcm/y HU → HR)¹² and Slovenia (1.84bcm/y).¹³ The interconnector with Slovenia is the supply route for Russian gas.¹⁴ However, the more recent interconnection with Hungary (built in 2011) has lately become the main route for imported gas to Croatia.

While this existing infrastructure meets Croatia's demands for gas and responds to the diversification objective (according to Eurostat data), Croatia is at the heart of a new regional gas cluster project which received PCI status.¹⁵

Croatia's current main gas priority project is the construction of a **liquefied gas import terminal on the island of Krk**. The project has been highly politicised and strongly prioritised by the Croatian government, despite the very serious economic, environmental and climate questions cast over it.¹⁶



The project is directly and indirectly linked to a set of LNG evacuation pipelines and transport infrastructure on Croatian territory and beyond (e.g. the interconnection pipeline to Bosnia and Herzegovina, the LNG evacuation pipelines Omišalj - Zlobin and Kozarac-Slobodnica, Compressor stations 2 and 3 at the Croatian gas transmission system and projects at the Cluster Croatia - Slovenia – Austria etc.). This creates a total of 9 candidate projects proposed for the 4th PCI list by Croatia.

As a first step, a floating Storage and Regasification unit (FSRU) is planned, with a capacity of 2.6 bcm/y, as a second stage an onshore terminal with capacities to import up to 7 bcm/y which would represent about three times the yearly gas consumption of the entire country.¹⁷ There has been an extensive to-and

¹⁰ <http://af.reuters.com/article/nigeriaNews/idAFL8N1921GT>

¹¹ <https://seenews.com/news/four-companies-bid-in-croatias-onshore-oil-and-gas-exploration-tender-659874>

¹² <https://circabc.europa.eu/ui/group/3ba59f7e-2e01-46d0-9683-a72b39b6decf/library/e1fd3867-2971-463e-aec5-2b3c603a0c4f/details>

¹³ <http://bpie.eu/wp-content/uploads/2016/09/Safeguarding-energy-security-in-South-East-Europe-with-investment-in-demand-side-infrastructure.pdf>

¹⁴ https://ec.europa.eu/energy/sites/ener/files/documents/2014_countryreports_croatia.pdf

¹⁵ <https://ec.europa.eu/energy/en/topics/infrastructure/projects-common-interest>

¹⁶ https://s3-eu-west-1.amazonaws.com/zelena-akcija.production/zelena_akcija/document_translations/1167/doc_files/original/LNG_krk_report_board.pdf?1544608742

¹⁷ http://appsso.eurostat.ec.europa.eu/nui/show.do?dataset=nrg_cb_gas&lang=en

-fro concerning the size and form of this terminal and, due to a lack of market interest during two extended bidding rounds, it was decided to build a “smaller terminal” in a first phase.¹⁸

In its Phase 1 floating terminal stage, the project is now strongly opposed by all local municipalities from Krk Island, the Primorje-Gorski Kotar County and by local environmental NGOs.

A collection of debunked myths around the promises of Krk LNG terminal can be found in the briefing “**Pipe Dream – Debunking the Myths of Croatia’s Krk Gas Terminal**”.¹⁹

However, despite heavy criticism from diverse backgrounds, the project received more than €100 million in financial support from the EU CEF program in February 2017.²⁰ Also, the EIB even announced in 2016 that it was ready to provide a €339m loan for the project.²¹

As yet, there is little justification for this project: it only attracts limited enthusiasm from some governments in the region (starting with Croatia), no one seems to be willing to financially contribute towards it (expectations are that the EU would finance more than half of the project...) ²² and several stakeholders doubt the commercial viability of the project.

Moreover, Croatia is already capable of diversifying its gas imports within its current infrastructures. More capacity in Croatia would only push the country closer to reliance on fossil fuels, in particular, one whose demand significantly decreased recently and which will have to be phased out rapidly in order to reach EU 2030 and 2050 climate objectives.

Finally, the Krk LNG terminal would likely bring fracked gas from the US²³ with all the environmental and climate implications it entails: Both Croatian and U.S. leaders agreed that this terminal is “strategically important”.²⁴

Considering the risk this project has of creating a new carbon lock-in and boosting offshore extraction (which has quite recently been stopped in the country) it is crucial that this unnecessary project is halted.



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¹⁸ <https://www.total-croatia-news.com/business/33172-lng-terminal-on-krk>

¹⁹ http://www.foeeurope.org/sites/default/files/extractive_industries/2018/pipedream-debunking-myths-croatias-krk-gas-terminal.pdf

²⁰ http://europa.eu/rapid/press-release_IP-17-280_en.htm

²¹ <http://www.eib.org/projects/pipelines/pipeline/20140627>

²² <http://www.total-croatia-news.com/item/14243-when-will-lng-terminal-project-in-croatia-finally-be-launched>

²³ <http://www.total-croatia-news.com/business/15341-construction-of-croatia-s-lng-terminal-to-start-in-2017> & <http://www.total-croatia-news.com/business/347-us-company-cheniere-energy-interested-in-lng-terminal-in-croatia>

²⁴ <https://www.total-croatia-news.com/business/25820-croatia-usa-krk-lng-terminal-strategically-important>