Agora Energiewende

Presentation on recent study on commercial prosumers in the South East Europe region

January 20 2022

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Link to the report:

https://static.agora-energiewende.de/fileadmin/Partnerpublikationen/2021/SEE_Commercial_Prosumers_as_Catalysts/20211208_Integrated_Copy_AGORA_Commercial_Prosumers_INTEGRATED_FINAL.pdf

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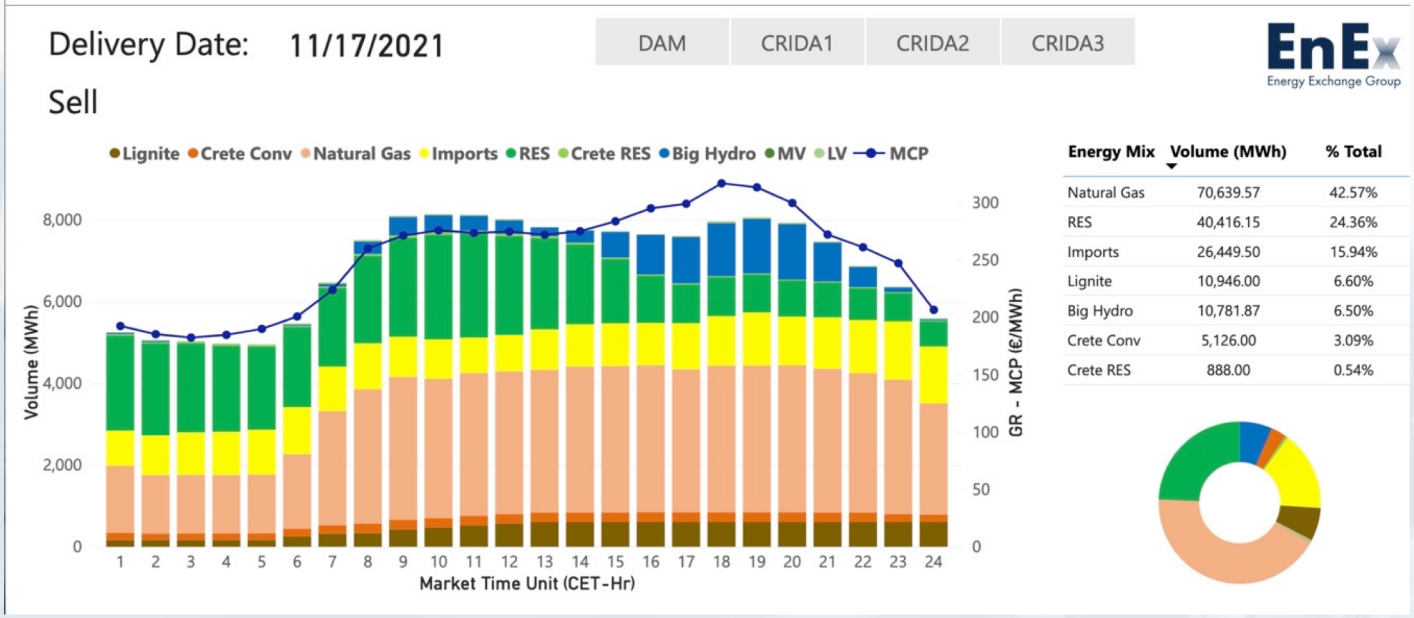
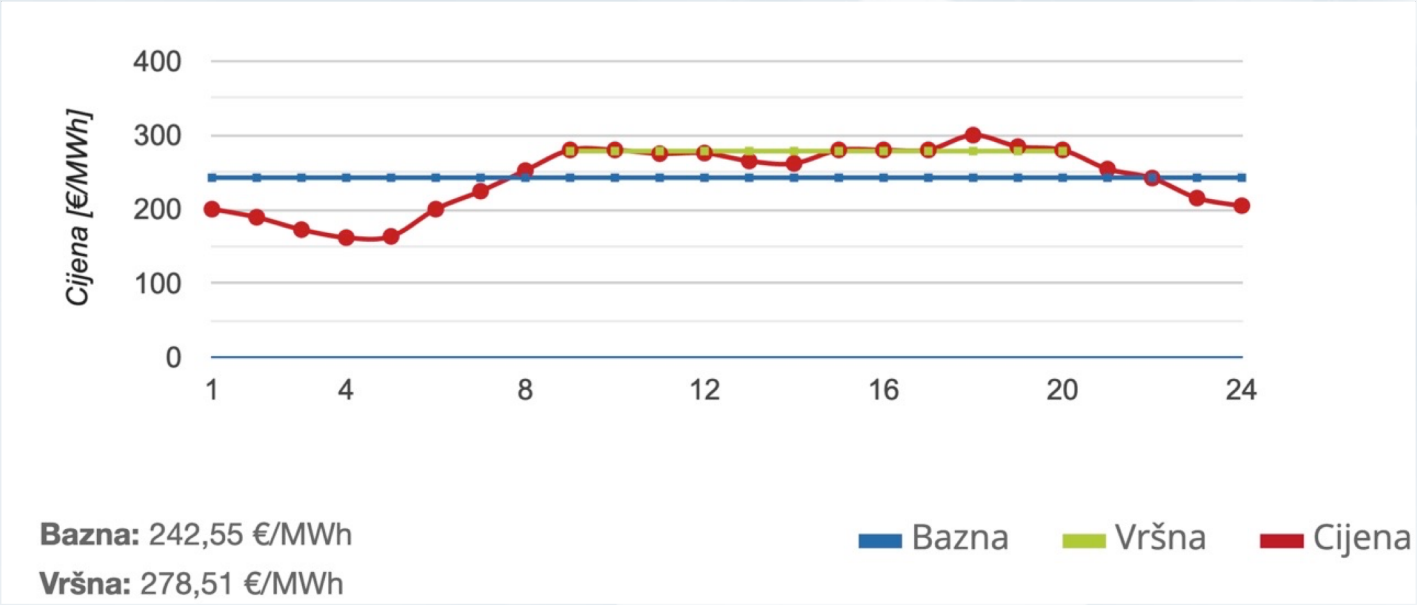
Day-Ahead Market Prices

Greece (HENEX)



Croatia (CROPEX)



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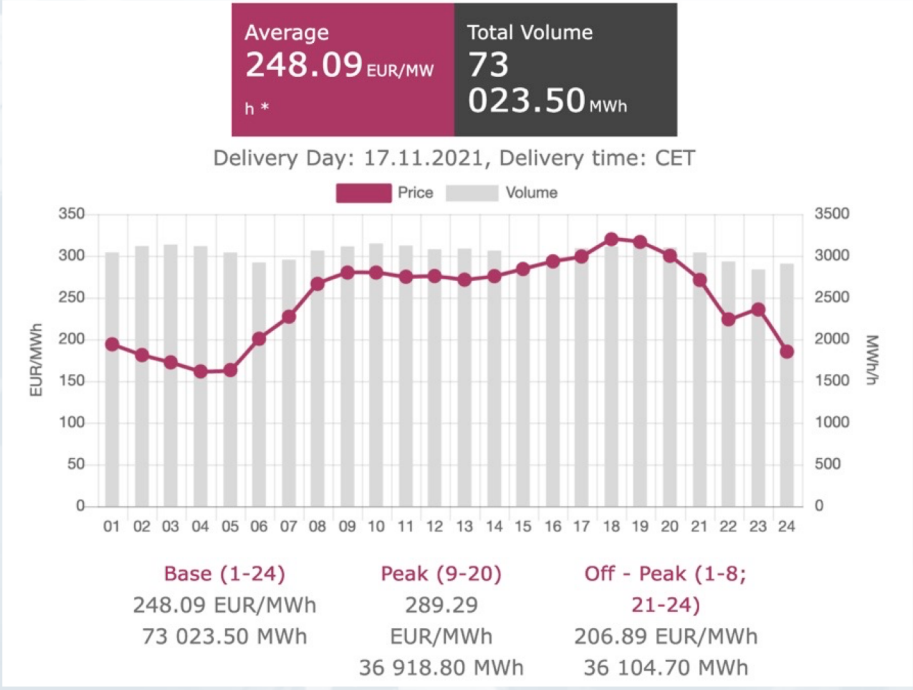
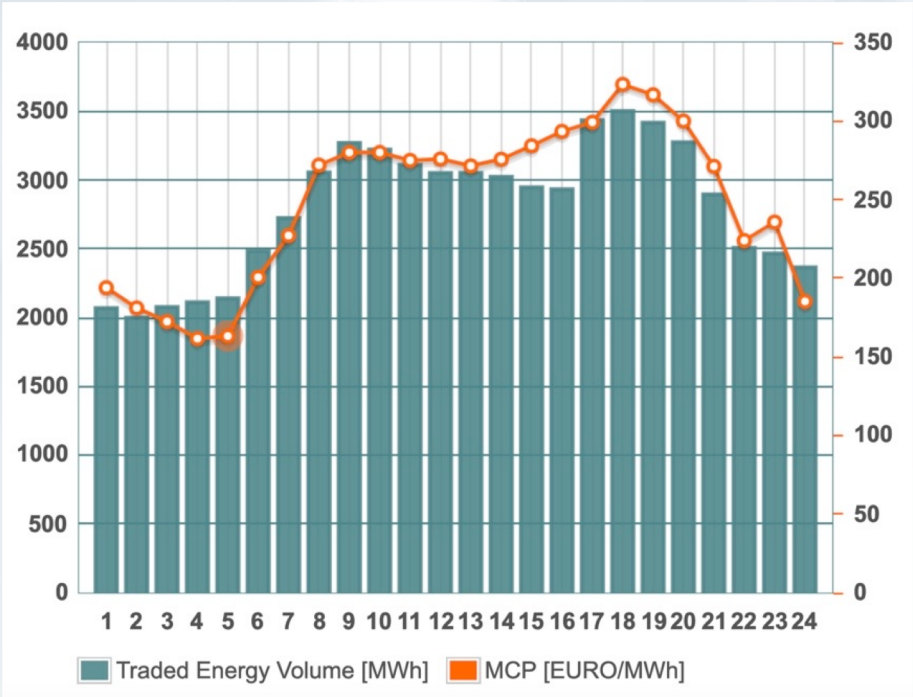
November 17 2021

Day-Ahead Market Prices

Bulgaria (IBEX)



Romania (OPCOM)



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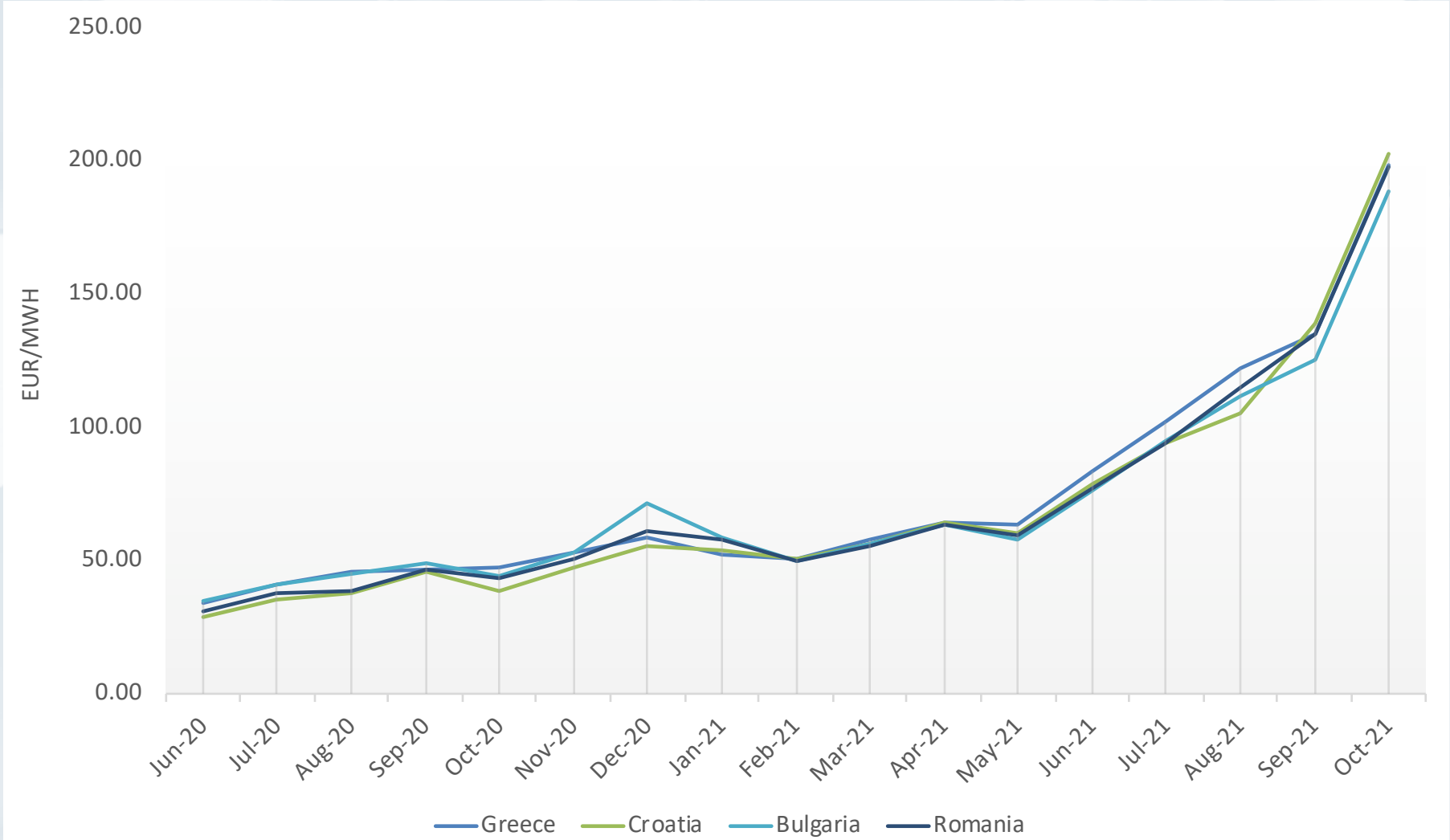
Day-Ahead Market Prices have increased fourfold (4x) since Oct 2020

Monthly Averages (in EUR/MWh)



Why Commercial Prosumers? (1)

- **Current policies** (including feed-in tariffs and renewable energy auctions) **are failing to bring sufficient new volumes of renewable energy capacity online.**

- **Company competitiveness:** Encouraging more low-cost, customer-sited generation can help **improve companies' competitiveness**.

- **Greater local co-benefits and job creation**

- **Lower environmental impact, and fewer conflicts with other land-uses (e.g. agriculture)**

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Why Commercial Prosumers? (2)

- Large-scale rooftop solar PV projects benefit from greater economies of scale than household-sized systems
- Unlock greater company engagement in the energy transition (including from companies not traditionally thought of as "part" of the energy sector): we need all hands on deck
- Make greater use of existing rooftop: no rooftop should go unused

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Key Facts about Commercial Buildings

Understanding Commercial Buildings in the EU	
1	In the EU, com**mercial buildings consume on average 40% more energy per m^2 than residential buildings** (250kWh/m^2 vs. 180kWh/m^2 for residential)
2	Commercial electricity customers are a major part of the electricity mix, representing between **40% and 70% of national electricity demand** in the four markets surveyed.
3	The overall **energy use of commercial customers is becoming more heavily dependent on electricity**: over the last number of decades, the share of electricity in commercial buildings' overall energy use has grown from 26% in 1980 up to 54% in 2010 and continues to rise

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Market Snapshots

	Greece	Croatia	Bulgaria	Romania
Total customer-sited PV capacity (early 2021)	51 MW	48 MW	Approx. 50 MW	Less than 10 MW
Predominant project type	Both residential and commercial	Predominantly commercial with some residential	Mainly commercial	Mainly commercial and industrial
Total installed solar PV capacity (approx.)	3 740 MW	108 MW	1 139 MW	1 386 MW
Solar share of national power Mix	8.2%	0.4%	3%	3.4%

Key Findings

1	Tens of gigawatts (GW) of customer-sited solar power are poised to come online throughout South East Europe (SEE) in the years ahead, driven by a powerful combination of economic, financial, and environmental factors as well as by political plans to accelerate the phase-out of coal throughout the region.

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Key Findings

2	Interviews with local prosumers and developers indicate payback times for commercial rooftop solar PV investments of as low as three years.

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Key Findings

3	However, attractive economics are not enough: smart policy frameworks are needed to catalyse investment at scale. National energy and climate plans (NECPs) across the region need to be updated to recognize the growing importance of prosumers, including in particular commercial prosumers.

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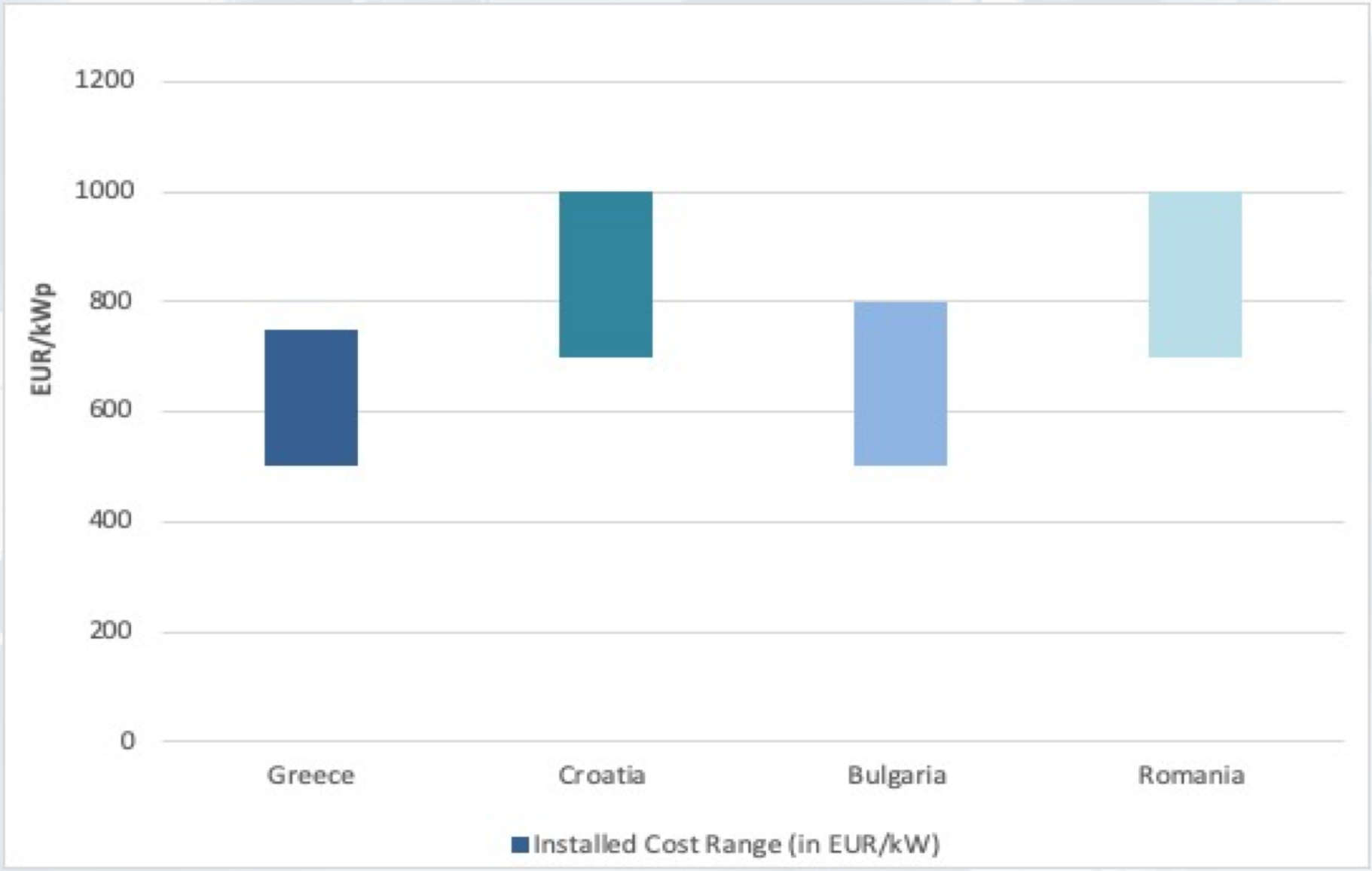
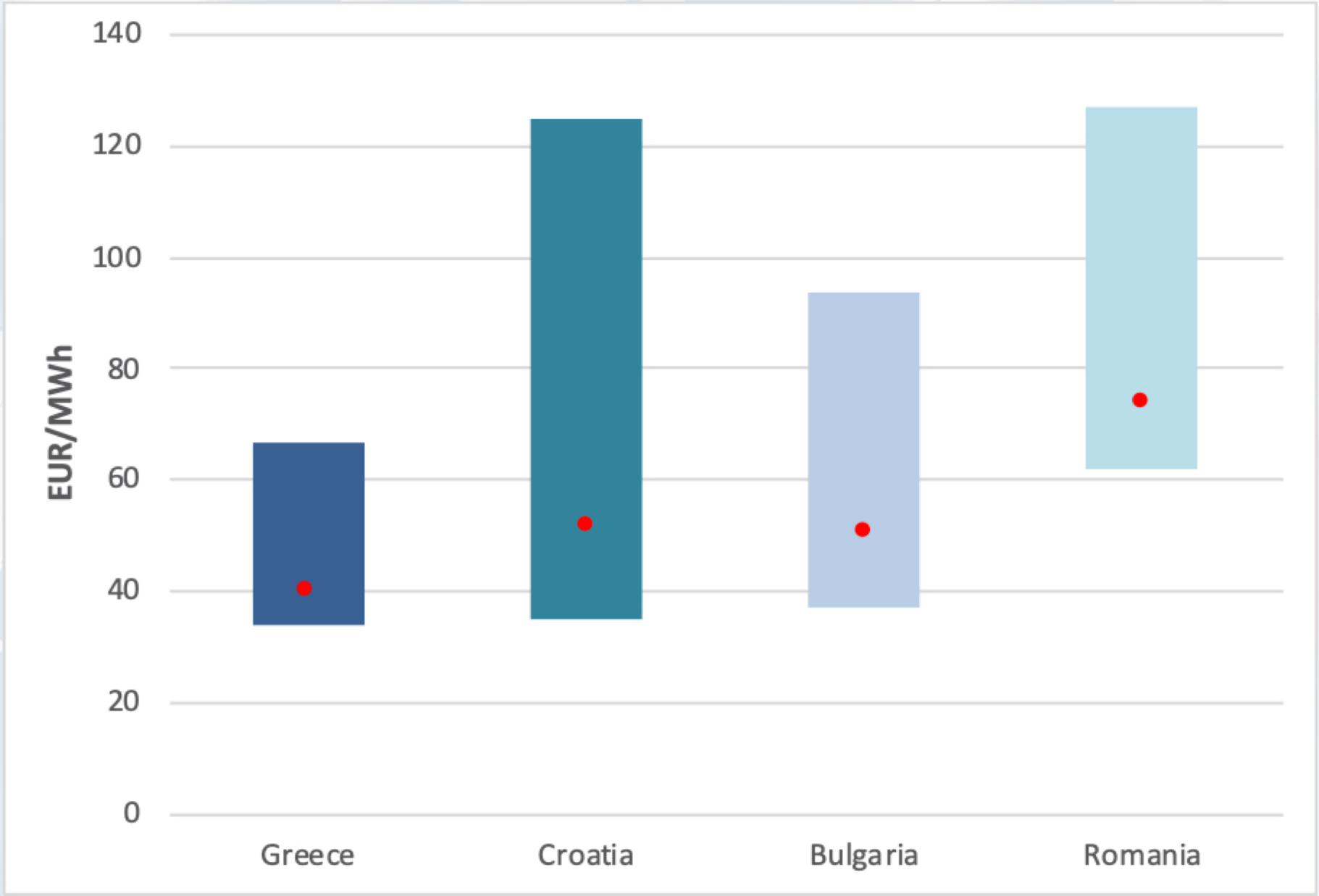
Key Findings

4	As the share of commercial prosumers and other forms of distributed generation grows, the need for targeted policies grows, including more dynamic and real-time pricing, greater interactivity and digitization of grid and metering infrastructure, as well as policies allowing greater prosumer participation in providing system services.

Market Snapshots: Installed Costs



Market Snapshots: LCOE range



Policy Options (selection)

- **Include prosumer targets explicitly in national energy targets (NECPs): e.g. 'X' MW of customer-sited capacity by 2025**
- **Simplify and streamline administrative processes and permitting**
- **Introduce better payment terms for the sale of surplus generation**
- **Introduce smart inverter standards** to support smarter interaction with the grid (voltage and frequency support, remote control, etc.)
- **Enable collective self-consumption,** and create legal frameworks to enable **peer-to-peer energy trading, virtual power plants, and direct PPAs**
- **Ensure taxes and charges apply only on "net" electricity consumed from the grid**

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Thank you!

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