

Analyzing the effects of Energy Action Plans on electricity consumption in Covenant of Mayors signatory municipalities in Andalusia

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The Covenant of Mayors (CM) is an initiative by which towns, cities and regions voluntarily commit to reduce their CO₂ emissions beyond the European Union climate targets, through policies promoting energy saving and renewable energy. The aim of this paper is to analyze whether joining the CM is reducing municipalities' electricity consumption, and therefore their emissions. For this purpose, the evolution of total, household and public administration electricity consumption from 2001 to 2012 is analyzed by using panel data econometric techniques. This analysis is made for municipalities in Andalusia, the region of Spain with more signatories. Obtained results show that the CM is having a positive effect on the electricity consumption reductions, since the municipalities have greater rates of reduction of electricity consumption after signing the CM. Therefore, it may be considered appropriate to promote policies which incentivize the municipalities to join the CM and develop their action plans, as this can reduce their electricity consumption. © 2016 Elsevier Ltd

Covenant of Mayors

Electricity consumption

Energy Action Plans, panel data

Carbon dioxide

Energy conservation

Public administration

Action plan

Andalusia

Climate targets

Covenant of Mayors

Electricity-consumption

European union

Panel data

Renewable energies

Electric power utilization

action plan

carbon emission

electricity supply

emission control

energy planning

energy use

European Union

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Andalucia

Spain