

Workshop “National strategies for renewables: energy efficiency, building renovation and self-consumption”

European Parliament Committee on Industry, Research and Energy (ITRE)



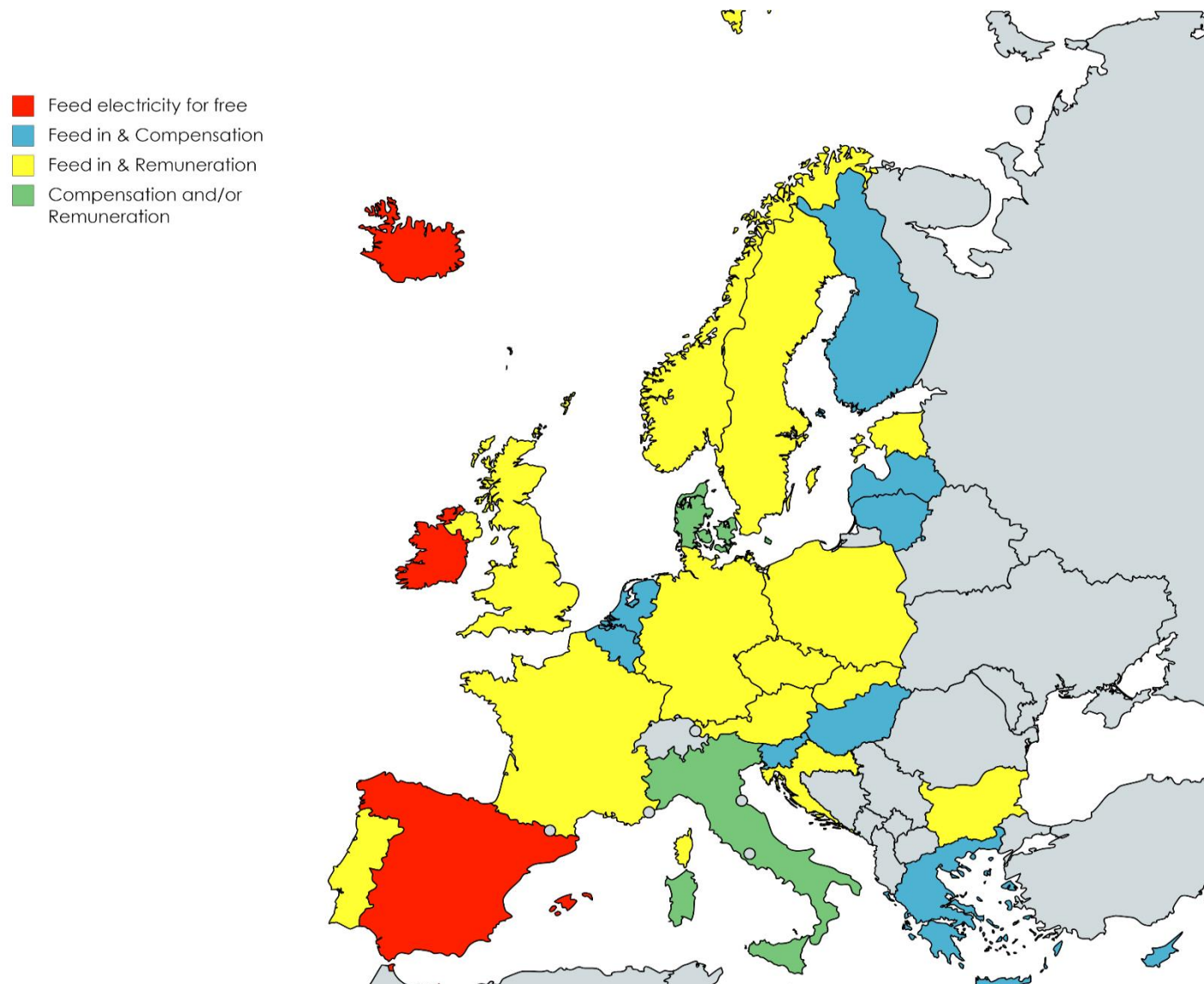
Lessons learned from different approaches across Europe in facilitating self-consumption of electricity

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EUROPEAN SUPPORT MECHANISMS FOR PV SELF-CONSUMPTION



AGENEX elaboration

Source: Study on “Residencial Prosumers in the European Energy Union”
JUST/2015/CONS/FW/C006/0127; European Commission

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ITALIAN LESSONS LEARNED

Legislative security	● ● ●
Administrative/grid bureaucracy	● ●
Economic support/penalties	●

MALTESE LESSONS LEARNED

Legislative security	● ●
Administrative/grid bureaucracy	● ●
Economic support/penalties	● ●

Case: residential building Sardinia Region



- PV power: 33 kW
 - PV energy coverage: 75%
 - Earnings: 8.523 €/year →
 - Simple Payback: 11 years
- Savings: 0,20 €/kWh
 Surplus: 0,14 €/kWh
 FIT: 0 €/kWh

Case: Eco Gozo Ministry



- PV power: 108 kWp
 - PV energy coverage: 45%
 - Earnings: 20.000 €/year →
 - Simple Payback: 13 years
- Savings: 0,12 €/kWh
 Surplus: 0 €/kWh
 Grant: up to 50%

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SWEDISH LESSONS LEARNED

Legislative security	●
Administrative/grid bureaucracy	● ●
Economic support/penalties	● ●

SPANISH LESSONS LEARNED

Legislative security	● ● ●
Administrative/grid bureaucracy	● ● ●
Economic support/penalties	● ●

Case: condominium association Blekinge



- PV power: 109 kWp
 - PV energy coverage: 33%
 - Earnings: 8.000 €/year →
 - Simple Payback: 14 years
- Savings: 0,12€/kWh
 Surplus: 0,0605 €/kWh
 Grant: 30%

Case: residential building Extremadura



- PV power: 1,6 kWp
 - PV energy coverage: 34%
 - Earnings: 308 €/year →
 - Simple Payback: 11 years
- Savings: 0,14 €/kWh
 Surplus: 0 €/kWh
 Grant: None

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GERMAN LESSONS LEARNED

Legislative security	● ● ●
Administrative/grid bureaucracy	● ●
Economic support/penalties	● ●

FRENCH LESSONS LEARNED

Legislative security	● ●
Administrative/grid bureaucracy	● ●
Economic support/penalties	● ●

Case: Heidelberger cooperative – Germany



- PV power: 445 kWp
- Tenant investment: 1.000 €
- Revenues: 3 % over 20 years
- Benefits: subsidized electricity 0.254 EUR/kWh

Case: Dairy farm Alsace



- PV power: 14kWp
 - PV energy coverage: 22%
 - Earning : 2.250€/year
 - Simple Payback: 10 years
- { Savings: 0,15 €/kWh
Surplus: 0,15?€/kWh
Grant: 10%

CLEAN ENERGY FOR ALL EUROPEANS

“The new proposal aims to further consolidate this trend, for example by removing obstacles to self-generation.”

“It aims to empower consumers and enable them to be more in control of their choices when it comes to energy.”

“The regulatory changes introduced by this package and the shift from centralised conventional generation to decentralised, smart and interconnected markets will also make it easier for consumers to generate their own energy, store it, share it, consume it or sell it back to the market – directly or via energy cooperatives.”

“This also necessitates the removal of wholesale and retail price caps, while ensuring the full and appropriate protection of vulnerable household consumers.”

CONCLUSIONS I

- Self-generation of electricity for local consumption has, in most MS, become economically **feasible without subsidies**
- Unnecessary **administrative barriers** for self-generation of electricity should be removed and grid connection procedures should be simplified
- Policy uncertainty should be avoided and more standardized and **stable legislation** should be promoted
- General public awareness should be **raised about technologies for self-generation** and the economic benefits
- **Collective energy self-generation** and consumption should be allowed in all MS, and specially facilitated/promoted in apartment buildings and small industrial parks

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CONCLUSIONS II

- Smart metering is recommended to optimize the net metering system and to facilitate demand response and local storage
- Grid tariffs for self-generators should be reasonable and fair and based on effective cost (e.g. share in peak load) and benefits (e.g. lower grid losses)
- Remuneration for surplus or back-up electricity should be based on market prices to incentivize demand response and local storage
- Adequate grid tariff and price setting should allow to offer benefits for both self-consumers (lower electricity cost) and society (lower overall system cost)
- Possibility of an of-the-shelf financial instrument at EU level to support (through a guarantee fund) PV investments for self-consumption should be considered

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