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IEFE
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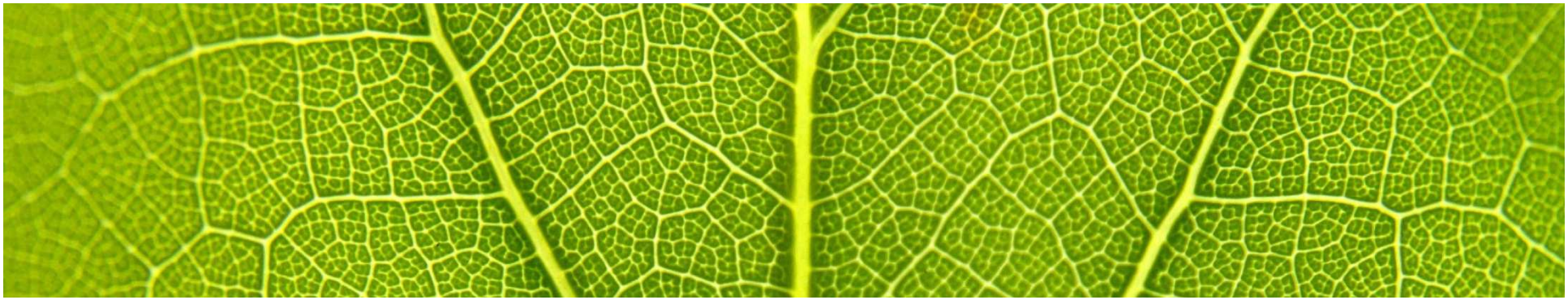

MEMBER STATE COOPERATION ON RENEWABLE ENERGY

Member State meeting
5 November 2014, Brussels

Case study: Joint Projects/Statistical Transfer between Malta and Italy

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Content

- **Malta – Italy Cooperation under RES Directive**
  - Italian (selling side) – Maltese (buyer side) perspectives
  - Main point of interest of the involved MSs

- **Main issues**
  - Cooperation on existing plants or on new installations?
  - How to assess convenience: Legacy costs vs. development risks
  - Joint project or statistical transfer?

- **Conclusions**

General introduction to the case study on renewables cooperation

Background and buyer-seller perspective

- **Malta** (*the buyer*)
  - Projected deficit of 2.0 ktoe;
  - **Cooperation as a way to tackle geographical constraints for further domestic RES development**;
- **Italy** (*the seller*)
  - Projected surplus of 2,858 ktoe;
  - **Cooperation as a mean of lowering financial impact of support mechanisms on energy consumers**.

- In 2014 a high voltage alternating current (HVAC) interconnector, between the two countries is due to come into operation. Nevertheless, the case study does not consider the physical transfer of electricity between the two countries.

Case study settings

> BOTTOM UP APPROACH

- From the analysis of concrete area of cooperation to the cooperation mechanism
  - **Existing plant already receiving incentives;**
  - **Realisation of a new plant;**

> TECHNICAL FEATURES

- Commercial-scale plant (1-5 MW):
  - Focus on projects that Malta cannot undertake on its own territory due to geographical limitations;
  - Fewer projects limit transaction costs;
- Technologies:
  - **PV solar**: if the entire deficit has to be covered by this technology, it has to involve the **equivalent of 18 MW of installed capacity**;
  - **Wind**: if the entire deficit has to be covered by this technology, it has to involve the equivalent of **13 MW of installed capacity**.

Main issues and distinctive features of this study

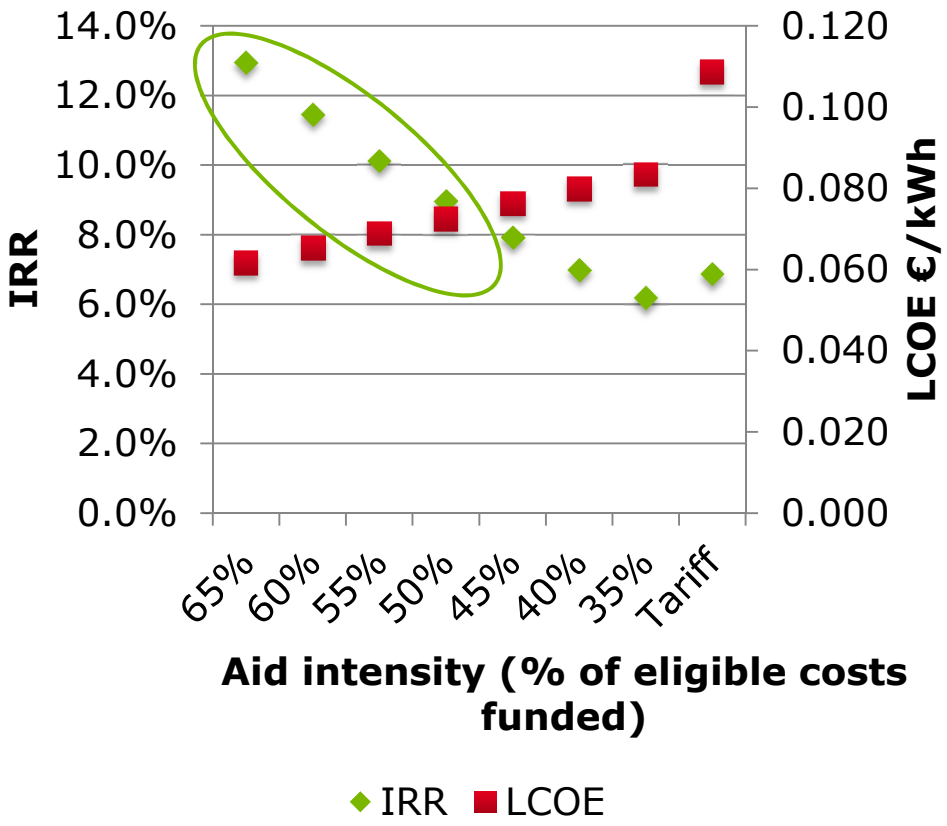
Cost of cooperation: EXISTING INSTALLATIONS

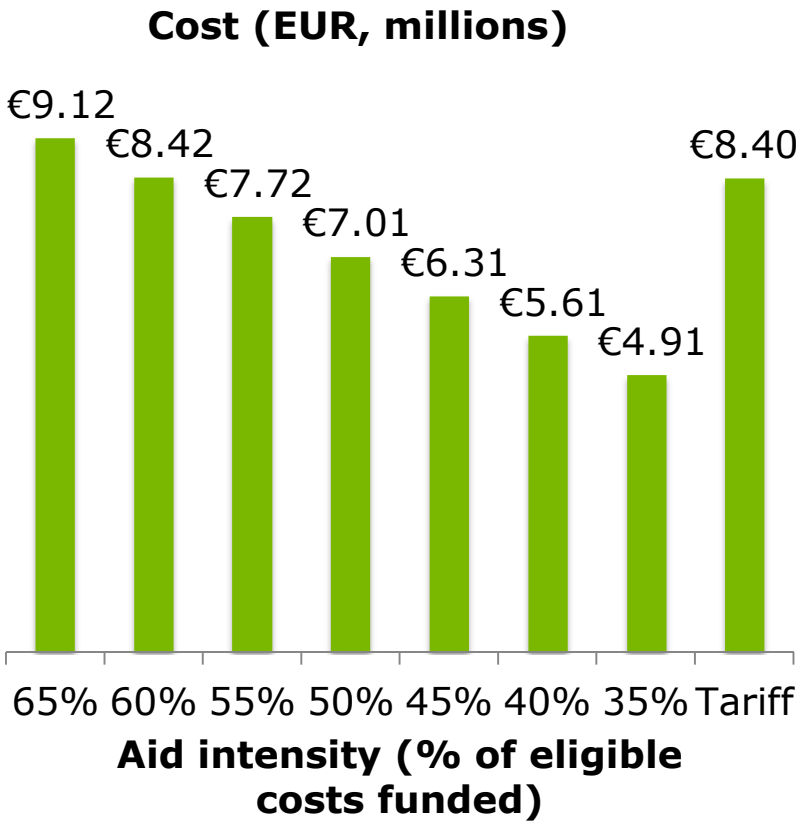
- Malta does not support wind power except micro turbines → WE CONSIDER ONLY PV
- A 1 MW PV plant in Malta is eligible to a 0.16 €/kWh tariff if it becomes operational before the 31st of October 2014 and 0.15 €/kWh from the 1st of November till the 30th of April.

Specific plant	**Unidentified plant**
The Italian incentive system becomes competitive compared to the Maltese from plants that came into operation from December 2011	Dividing the total cost of support for PV (EUR 6.7 billion per year) by yearly electricity production (in 2013 22,146 GWh). This leads to an average cost of incentive of 0.302 € per kWh corresponding to **a yearly expenditure of EUR 7 millions**.

Please note that calculations do not take into account changes introduced by Law Decree 91/2014

Cost of cooperation: NEW INSTALLATIONS





Capital cost (‘000 €/MW)	900	**Tariff (€/MWh)**	110.0
O&M cost (‘000 €/MW)	30	**Incentive for on-site consumption (€/MWh)**	28.0
WACC (%)	9.76	**Consumption on-site (% of total production)**	84
Electricity price - PUN (€/MWh)	66.5		

Joint project or statistical transfer?

	Joint Project	Statistical transfer
Cooperation until 2020 or beyond?	Project lifetime	Until 2020 (multiple years or only 2020)
Cost of cooperation	Will potentially be more expensive (because usually support costs would have to be borne beyond 2020).	Will generally be cheaper than a Joint Project (because limited timeframe of cooperation)
Specific technology-development?	Most likely: yes	Most likely: no
Additional installations?	Most likely: yes	Most likely: no
Private participation	Direct	Indirect
Incentives	May require additional ad hoc incentives as negotiated by Countries	Based on bilateral negotiation
Public acceptance (e.g. "tangible" results)	Potentially better public acceptance (for Malta and for Italy because "real" project is installed)	Less costs (better acceptance), but no tangible results (nothing to show)
Level of risk	High and concentrated on the off-taking country • Construction risk • Uncertainty over actual energy production Host country risk for not reaching its own target.	Low and concentrated on the host country • Risk to guarantee promised production to be transferred Off taking country risk for not reaching its own target.

Conclusions

Conclusions

- Cooperation involving new plants might be more cost-effective compared to cooperation involving already existing plants.
- New plants development expose the off-taking country to full project risk.
- The difference between the two options may be considered as the cost of insuring against the risk of non-compliance with Malta's 2020 target.
- However, since the cost of non-compliance is unknown we are not able to assess its economic convenience.

Open issues

- How to identify plants and how to involve private operators and grant support:
  - If project size exceeds the given thresholds (1 MW for PV or 6 MW for wind) from 2017 support has to be granted through an auction unless conditions of par. 126 of State Guidelines apply.
  - In this case there will thus be the additional challenge of organizing a competitive selection process in a context with a potentially limited number of participants.

- Risk sharing and obligations of the parties

Please contact us for more information

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