Meeting Europe's 2030 renewable energy target at much lower cost

Proposal for a Renewable Energy Cost Reduction Facility ("RES-CRF")

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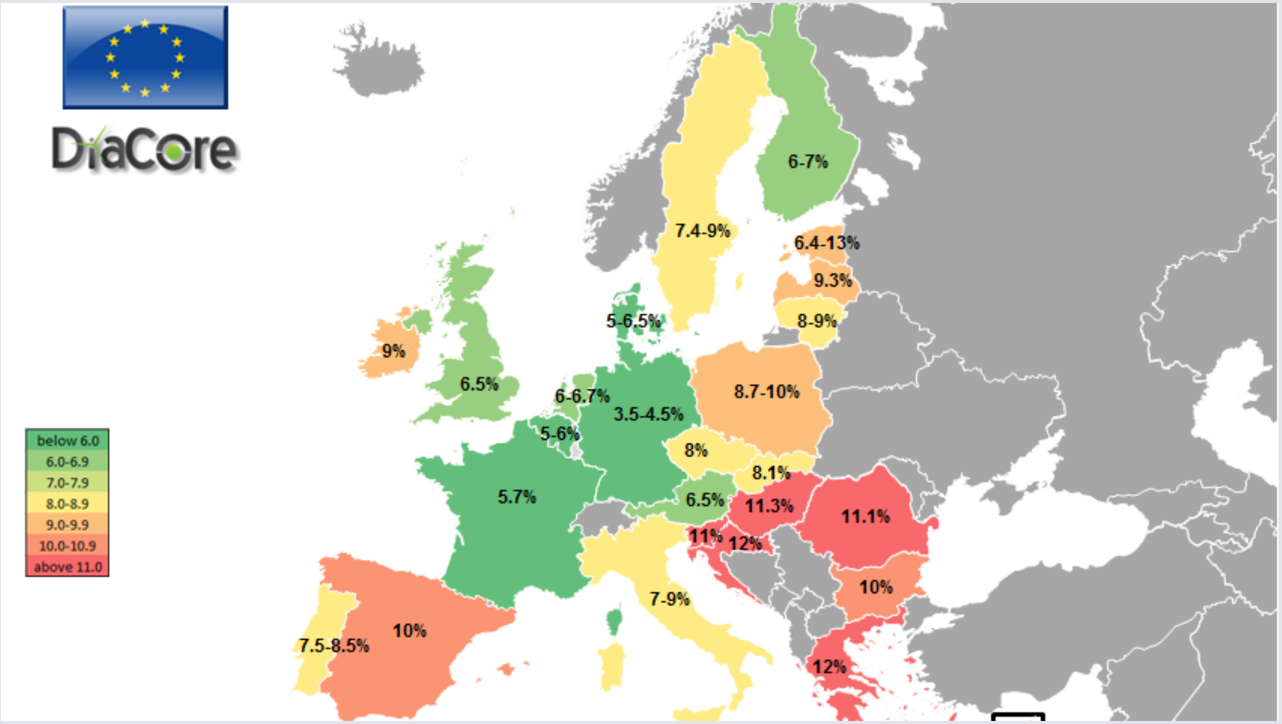
Cost of capital is a major determinant of the cost of renewable energy and varies substantially between EU Member State

Cost of capital varies between 4% and 12% between Member States



DiaCore project findings for onshore wind cost of capital in EU countries in 2014

- → RES investments are capital intensive.
- → High cost of capital create competitive disadvantage vs fossil energy investments
- → Differences in cost of capital between member states driven by tariff and non-tariff related risk
- → Building the same wind-turbine under the same wind conditions would cost twice as much in Greece as in Germany
- → 18 Member States with cost of capital above 7% with Germany at c.4%
- → Poorer Member States have higher cost and thus less opportunity to decarbonise on RES
- → Good conditions in high risk member states are not used

=> Status Quo seems inconsistent with an EU-wide target for 2030

RES-CRF: A voluntary, contractual framework giving all Member States access to low cost capital for RES investments

→ EU and Member States negotiate terms of RES support in Member State upfront

→ EU agrees to underwrite tariff related risks for investors in that Member State

→ Member State agrees to repay any guarantee payments made by the EU Institution

→ Investors treat any RES-CRF guaranteed project as if it were in the safest Member State

→ Lowers the cost of capital for RES investment in Member States

→ Reduces overall EU cost of meeting EU 2030 RES target

→ Expands RES opportunity for poorer Member States and enables higher contributions to EU target

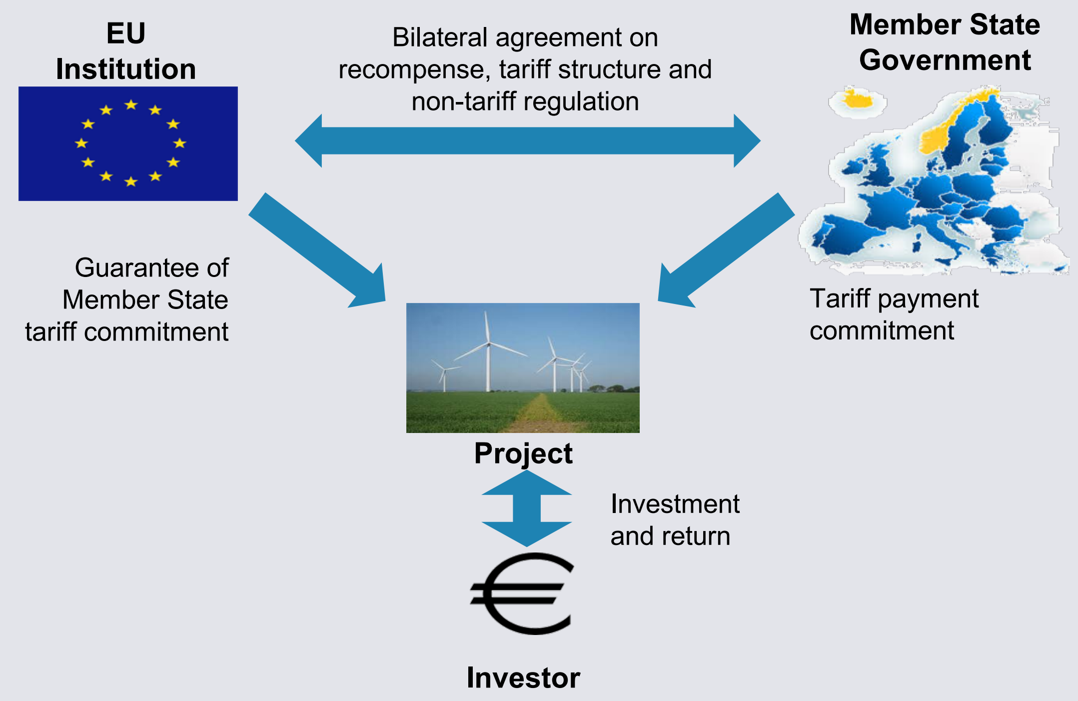
→ Reduces non-tariff risks in Member State

→ Incentivises convergence of national RES frameworks around EU best practice standard

Potential to save over €34bn in 2020-2030 decade for meeting the EU 2030 RES target and provide a more efficient and equitable distribution of RES investment

RES-CRF is a contractual arrangement between the Member State, an EU Institution and Investors in RES projects

Contractual framework of the RES-CRF

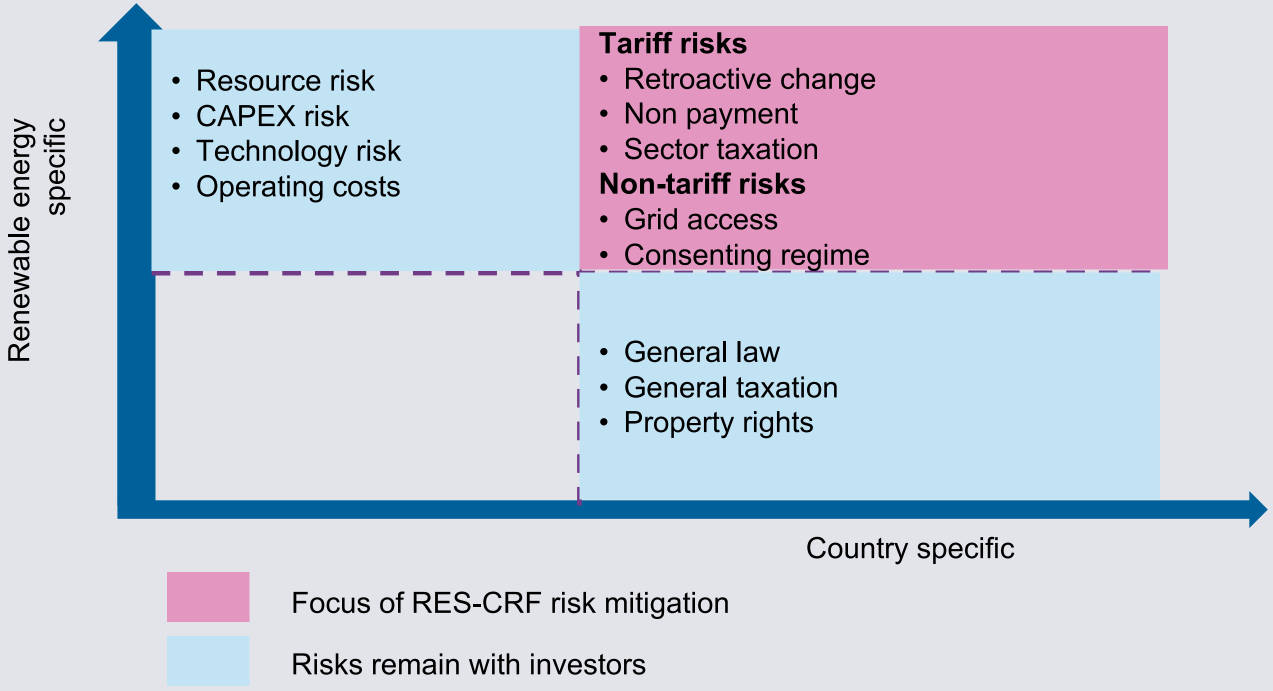


Agora analysis

- Member State provides RES tariff to projects
- If Member State maintains policy RES-CRF is never required, but exists
- Investors have a simple guarantee of payment of the Member State tariff from an EU Institution
- EU and Member State negotiate terms of tariff underwrite and non-tariff performance
- Member State contractually undertakes to repay any guarantee payments made by the EU Institution
- Responsibility for recourse to Member State moved from project to EU Institution

The RES-CRF provides a hard contractual underwrite of tariff risk and a “softer” approach to non-tariff risks

Renewable energy risk matrix and focus of RES-CRF mitigation



DiaCore project showed that country related RES risks were key to cost of capital

Tariff related country specific RES risks

→ Explicit EU underwrite of tariff

→ Compensation for sector specific taxation

→ Hard, on-demand, guarantee

→ Opportunity to converge tariff design around EU best practice standard

Non-tariff country specific RES risks

→ Member State commitment to reform specific non-tariff barriers to reduce risks

→ Commitment to explicit performance target (eg one-stop-shop permitting) or..

→ … benchmark performance in given areas

→ EU underwrite does not cover barriers removal

The RES-CRF has two voluntary and negotiated contracts which underpin its operation and its benefits

EU-Project Guarantee

- → Robust, short and simple
- → On-demand guarantee of tariff at time of investment
- → Insurance against sector specific taxation
- → No mention of non-tariff risks
- → Potential payment of a premium
- → Voluntary for the project
- → Project can cancel, guarantor cannot
- → Project knows ex-ante of investment decision that it will receive the guarantee

EU-Member State Contract

- → Longer and more complex
- → Effectively a negotiation on the terms and structure of RES support to 2030
- → Member State agrees to repay any guarantee payments
- → Agreement in tariff being underwritten
- → Limits on volume of underwrite
- → Project selection / sector coverage / project qualification
- → Non-tariff risk commitments from Member State
- → Voluntary for the Member State

The EU Institution only loses money if the Member State defaults both on its tariff commitment and its contract / agreement with the EU Institution

What happens in the event that a Member State defaults on its tariff?

Step 1:

Member State reneges on previous tariff commitment to project(s)

Step 2:

EU Institution pays out to project

Step 3:

Member State pays EU Institution under bilateral contract

Only if the Member State defaults under the contract with the EU Institution at Step 3 does that institution lose money

Agora analysis

- → EU Institution will need the liquidity facility so it can pay out quickly and recoup the funds from the Member State
- → EU Institution will only agree to underwrite tariffs which it believe are financially and politically sustainable for the Member State
- → The EU Institution does NOT provide a blanket underwrite of all RES tariffs in a Member State (it only underwrites the tariffs it believes are sustainable)
- → The obligation on the Member State to repay the EU Institution will be absolute under the contract
- → Only default under the contract and failure to enforce the contract by the EU Institution will results in a loss by the EU Institution

Commission proposal of 30 November 2017 for a recast of the EU Renewable Energy Directive

Article 3 - Union binding overall target for 2030

1. Member States shall collectively ensure that the share of energy from renewable sources in the Union's gross final consumption of energy in 2030 is at least 27%.
2. Member States' respective contributions to this overall 2030 target shall be set and notified to the Commission as part of their Integrated National Energy and Climate Plans …
3. …
4. The Commission shall **support the high ambition of Member States through an enabling framework** comprising the enhanced use of Union funds, in particular financial instruments, especially in view of **reducing the cost of capital for renewable energy projects**.

=> „Enabling framework“ could comprise elements in the new Governance Regulation as well as other elements, for example, the updated Juncker Investment Fund (EFSI 2.0), the next Multiannual Financial Framework (2021-2027) etc.

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Questions or Comments? Feel free to contact me:

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Back-Up

Issues of detail for discussion and further analysis

- → Institutional home (Commission, EIB, other)
- → Efficient budgetary provision of contingent capital to back facility
- → Project selection
- → Resourcing (establishment and operational)
- → Role of a premium payment for the contract btw EU institution and member state government
- → Link between Member State and tariff implementation

Frequently asked questions (1)

Question	Answer
1. Does the EU Institution underwrite the risk of a future Member State government changing the tariff?	Yes, but only for those tariff where it has agreed a back-to-back contract with the Member State.
2. Does this mean on Member State government effectively binds a future Member State government through the contract with the EU Institution?	Yes, but only for those tariffs that are part of the back-to-back contract.
3. Does the project have to take the guarantee?	No, and there will probably be a small charge for taking a guarantee. Ideally over time investors gain confidence in the Member State tariff and stop taking the guarantee. A small charge will help that guarantees are only taken where needed.
4. Wouldn't the pay-out in Spain and Italy (not to mention others) have been enormous for their retroactive changes to tariffs?	Yes, but there are two reasons why this is not an issue now. Firstly, support costs for RES are now substantially smaller as the technology is cheaper. Secondly, the EU Institution will place a limit on the volume of guarantees it will issue under the contract with the Member State. Therefore the exposure is always limited and designed to be sustainable. A pay-out like in Spain or Italy will not happen.
5. Is this a way of moving the risk of enforcing RES tariffs in Member States from investors to the EU Institution?	Yes. That is the point.
6. How much money would an EU Institution need to back this?	We hope it would never be used. Hence the financial backing is very contingent. The best way to size the capital required is to look at the liquidity the EU Institution might need between paying out and enforcing the contract on the Member State.
7. Does the guarantee cover the market power price?	No

Frequently asked questions (2)

Question	Answer
8. What is the Member State refuses to pay the EU Institution under the agreement it has with it?	It will be contractually obliged to.
9. Why should a Member State with a low cost of capital risk (however contingent) having to pay out under the guarantee for a rogue Member State who implements retroactive changes?	There is no direct monetary transfer from one Member State to another. There is, however, a small risk that EU funds used for financial backing of the facility might eventually be lost. So the question really is why a Member State that will not use the facility should accept that EU funds are used for that purpose. It will accept, because the benefits outweigh the risks of pay-out. For some those benefits will be about the economic efficiency this system brings. For others it will be about fairly spreading the benefits of the energy transition. For others it will be about ensuring they do not have to make a physically disproportionate contribution to the 2030 target.
10. Is this Member State RES targets by the back door?	No. Participation in the scheme is entirely voluntary. The EU Institution will be acting quite commercially under these contracts and hence is more likely to wish to limit its guarantee exposure than to try to enforce a higher Member State RES target
11. Does the guarantee cover all RES tariffs in a Member State?	No. It only covers those projects and tariff specified in the EU Institution to Member State contract / agreement. The agreement could also consist of a general understanding on underwriting complemented by implementing agreements relating to specified amounts of projects underwritten.
12. Is this an single EU tariff by the back door?	No. Participation is voluntary. Member States can design their tariffs as they see fit. It is likely to lead to some standardisation of arrangements which is to the benefit of everyone.