

## *Executive Summary*

To date, most South East European countries have relied heavily on conventional generation technologies. However, over the next decade, countries in this region will have to replace around 50 per cent of their existing capacity for age-related reasons.<sup>1</sup> The key question is: What will replace these conventional assets? New power plants fired by coal? By natural gas? By nuclear? Or by renewable energy?

Various factors argue in favour of making renewables the centrepiece of future energy investment in South East Europe (SEE), including recent dramatic declines in the cost of wind and solar PV, the need to rapidly reduce global greenhouse gas emissions, and the vast renewable energy potential of the region.

Renewable energy development in SEE has been limited to date, however. One impediment to scaling up renewables is their higher up-front capital intensity compared to investment in coal or natural gas. Higher up-front costs make renewable energy (RES) investment more sensitive to political and regulatory conditions than projects with lower capital intensity. And since private investors typically consider ventures in South East Europe riskier than investment in Germany or France, RES projects in the region face relatively higher financing and capital costs. The “risk premiums” demanded by investors have a significant effect on the price of renewable power. Past research has shown that higher financing costs could render a wind energy project in, for example, Croatia, twice as expensive as the same project with similar resource conditions in Germany. Bloated financing costs have two effects: first, they support the perception that renewables are costly to consumers and taxpayers. Furthermore, in a high cost of capital environment, renewables may not outcompete fossil-fired generation, even given cheaper system costs.

Against this backdrop, this report explores how various political and financial measures could help to “de-risk” renewables investment. It then estimates how such measures would impact the prices paid by consumers for renewable energy. We take onshore wind investment in two countries in SEE – Serbia and Greece – as case examples. Our estimations of the quantitative effects that result from derisking measures rely on data derived from interviews with private-sector investors and project developers.

**Serbia** has significant renewable energy potential and is well positioned for investment in utility-scale renewable energy projects. However, there is political support for further investment in lignite-fired power plants. The country’s renewables support regime is currently undergoing reform; existing incentives will be revised, and there will be a gradual move to an auction-based system. In Serbia, in particular, three risk categories significantly contribute to higher financing costs: (1) “power market risk”, (2) “political risk”, as well as (3) “counterparty risk”.

According to our analysis, the introduction of targeted derisking measures could lower the cost of equity of onshore wind investment by 6.6 percentage points and the cost of debt by 2.3 percentage points. A public budget guarantee mechanism – as it is currently considered under the new EU budget – would reduce the cost of equity by 3 percentage points and the cost of debt by 1.1 percentage points. This would reduce the weighted average cost of capital (WACC) by over 40 per cent in the cases examined here. Further derisking measures that would considerably decrease financing costs are (1) a reliable remuneration scheme for renewables; (2) long-term renewable energy development targets; and (3) open and efficient balancing and intraday markets. According to

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<sup>1</sup> Agora Energiewende (2018): A clean energy transition in Southeast Europe: Challenges, Options and Policy Priorities

our analysis, de-risking measures for onshore wind would bring the levelised cost of renewable electricity below that of new lignite plants (5.5 euro cents/kWh compared to 7.3 euro cents/kWh for lignite). At present, the LCOEs of these technologies are nearly equivalent.

**Greece** needs to replace around 60 per cent of its current lignite-based electricity generation capacity by the end of 2030. It has committed to achieving a renewable energy share of 20 per cent in gross final energy consumption by 2020 and of 31 per cent by 2030. Furthermore, Greece aims to increase the share of renewables in the power sector to 40 per cent by 2020 and to 63 per cent by 2030. Although Greece has made some progress in diversifying its power generation mix and increasing the role of renewables in recent years, lignite and natural gas each still cover more than 34 per cent of power demand. And worryingly, the government plans to add 615 MW of new lignite-based power.

Our analysis shows that in Greece, three risks have a particularly strong influence on the cost of capital for investment in onshore wind projects: (1) “power market risk”, (2) “social acceptance risk”, and (3) “financial sector risk”. Together, financing risks contribute 1.5 percentage points to the cost of equity, while policy risks contribute 0.5 percentage points.

In Greece, derisking measures could lower the cost of equity for onshore wind investments by 4.9 percentage points and the cost of debt by 1.9 percentage points. The strongest effect would result from derisking instruments that target financial sector risk and counterparty/ off-taker risk. Both risks categories would be addressed by the EU budget guarantee mechanism currently discussed as part of the new EU budget for 2021-2027.

Reducing the capital costs would lower the levelised costs of electricity for onshore wind parks in Greece by almost 15 per cent in relation to a scenario without de-risking measures (from 5.7 euro cents/kWh to 4.8 euro cents/kWh).

The European Commission has proposed that the new European budget that will apply from 2021-2027 should offer high cost-of-capital countries in Europe the option of developing renewable energy projects with the **financial backing of an EU budget guarantee mechanism**.

Our analysis shows that using such derisking measures would yield considerable reductions in the financing costs for onshore wind projects in Greece and in Serbia. Furthermore, similar benefits would be likely to occur in other countries of South East Europe, given similar uncertainties for renewable energy investment across the region.

Renewable energy is a no regret option in all energy transition scenarios and the region of South Eastern Europe has a very significant renewable energy potential. However, with wide-spread concerns about rising power prices and energy poverty, developing the renewable energy potential of the region should be done at lowest possible cost to consumers and taxpayers.

Policymakers are therefore well-advised to use all available opportunities for reducing the financing costs of renewable energy. This should include using the new EU budget guarantee mechanism, if it is retained in final negotiations on the future EU budget.

Our analysis also shows that de-risking measures would make onshore wind projects in **South East Europe** cheaper than conventional energy projects such as new lignite. This is important. It means that *economic* advantages can be added to the list of benefits produced by renewable energy development (including energy security, clean air, and climate protection). It thus makes a compelling case for moving faster and further to develop renewables in South East Europe.