Low risk auction design

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Low-risk auction design draws from analysis on auctions on cost of capital (WP5)

Work Package 5 (WP 5)

Survey on cost of capital in solar PV and wind projects
• 93 semi-structured interviews across EU member states (and UK)
• Bankers, project developers, investors, experts

Econometric analysis on factors affecting cost of capital
• Macro-level variables (e.g., country risk)
• Meso-level variables (e.g., auctions - # rounds and MW, exposure market price)
• Project-level variables (e.g., resource risk)

Cash-flow model to estimate
• Expected bid prices across EU 27 and UK
• Effect of financing conditions vs. other variables on bid prices
• Support costs
Low-risk auction design takes the local financing conditions of developers into account and tries to minimise unnecessary risks for bidders.

Good auction design does not need to shield bidders from all risks. Instead, it should help them correctly assessing and addressing the risks involved in participating in an auction.
1. Auctions can significantly impact financing conditions *

2. Policymakers can create low-risk investment environments by choosing designs that ease financing and decrease cost of capital

3. A focus on de-risking of debt financing delivers the largest reductions in cost of capital and thus support costs
   >> loan maturities and debt size can be increased, interest margins decreased by revenue stabilisation mechanisms (such as CfDs, sliding premiums and price floors)

4. Sufficiently large volumes, multi-year auction schedules and stability can reduce cost of capital, by allowing for economies of scale and portfolio effects; and by reducing allocation and qualification risk

5. Relaxing material pre-qualifications, bid bonds and penalties does not create significant support cost reduction (e.g., through lower equity return requirement); instead, it may create unwanted effects, such as lower project realisation rates

6. “Walk-away” effect: Bidders may decide not to participate in an auction if its design is perceived unfavourable or with an inadequate risk-return profile

* However: cost of capital do not only depend on support policies, but on many other external factors, such as country risk
AURES II resources on auctions, risk and financing

Reports

• Effects of auctions on financing conditions for renewable energy, 2019
• Renewable energy financing conditions in Europe: survey and impact analysis, 2021
• Auction design and renewable energy financing, 2021

Policy Briefs

• De-risking and scaling up renewables through market-based policies, 2022

Scientific articles

• The impact of auctions on financing conditions and cost of capital for wind energy projects, Energy Policy, 2021

Data

• Financing conditions of renewable energy projects –results from an EU wide survey, Open Research Europe, 2021