Estimating WACC for renewable energy in Western Balkans

Mak Dukan
Starfish Energy
Co-founder and Consultant
Wide variation in WACC assumptions affects LCOE and brings uncertainty to private investors.

Very broad range of WACC assumptions in LCOE and RES potentials studies.

Source: IRENA, Joanneum Research and University of Ljubljana (2017), Cost-Competitive Renewable Power Generation: Potential across South East Europe, International
WACC increasing policy: PPA design & granting procedure in BiH

- investor receives final PPA (and support) only after the project has been constructed (in FBIH and RS)

- requiremet to pay 1% of investment costs as bank guarantee and submit guarantee within 30 days or receiving preliminary PPA from Operator for Renewable Energy Sources and Efficient Cogeneration

- PPA not viewed by banks as bankable document – lack of experinace with large projects and generally weak PPA from investor security perspective
WACC decreasing policy: new PPA package Serbia

- “Single PPA” - Ability to conclude PPA immediately after receiving the Temporary Privileged Producer (TPPP) status [1]

- Change-in-law clause – “Changes in legislation which ultimately lead to an increase in producer’s expenses, shall result in the corresponding increase in FIT” [1]

- Political force majeure – if any competent authority fails to issue, upkeep, amend or prolong any public authorization without the fault of the generator or the off-taker, the agreement shall remain in force, but its legal effects shall be suspended for the period of duration of the force majeure event [2] (and the PPA shall be prolonged for the period of event)

Risks of new policy design: effect of changing from FIT to FIP in Croatia

- Market with experience in FIT ≈ 48 MW solar PV, 26 MW biomass, 28 MW biogas and 412 MW onshore wind etc.

- Renewable energy law (NN 100/2015) mandates change from FIT to FIP and auctioning > implementation delayed to early 2018 (NN 123/2016)

- What are the effects on risk perception? What are lessons learned for others in Western Balkans?
Risks of new policy design: effect of changing from FIT to FIP in Croatia

Research base

- 8 interviews in total conducted for Pricetag in Croatia
- 3 with heads of project and structural financing departments of major Croatian commercial banks: Unicredit Group (ZABA), Erste Bank, Raiffeisen Bank

Main conclusion

- Irregular revenue flows from FIP schemes (due to fluctuation in electricity prices) and delays in implementation negatively affect risk perception
- Compared to FIT the envisaged FIP scheme valued as more risky, but with no hard conclusions available due to lack or experience
Why should we know more about risk and WACC for RES in Western Balkans?

- Systematics investigation on barriers exists but without direct connection to costs of financing (example: IRENA et al 2017)

- Creation of WACC aware policies could decrease the cost of financing renewables in Western Balkans

- Better WACC understanding enables more precise design of current (FIT) and future (FIP) policy schemes and LCOE estimates
Thank you for your attention!

Mak Đukan
mak@starfishenergy.org

Selska cesta 46
10000 Zagreb, Croatia

Ansbacher Str. 45
10777 Berlin, Germany

www.starfishenergy.org