



Renewable Power Purchase Agreements in the Energy Community

Project status

April 23rd, 2024



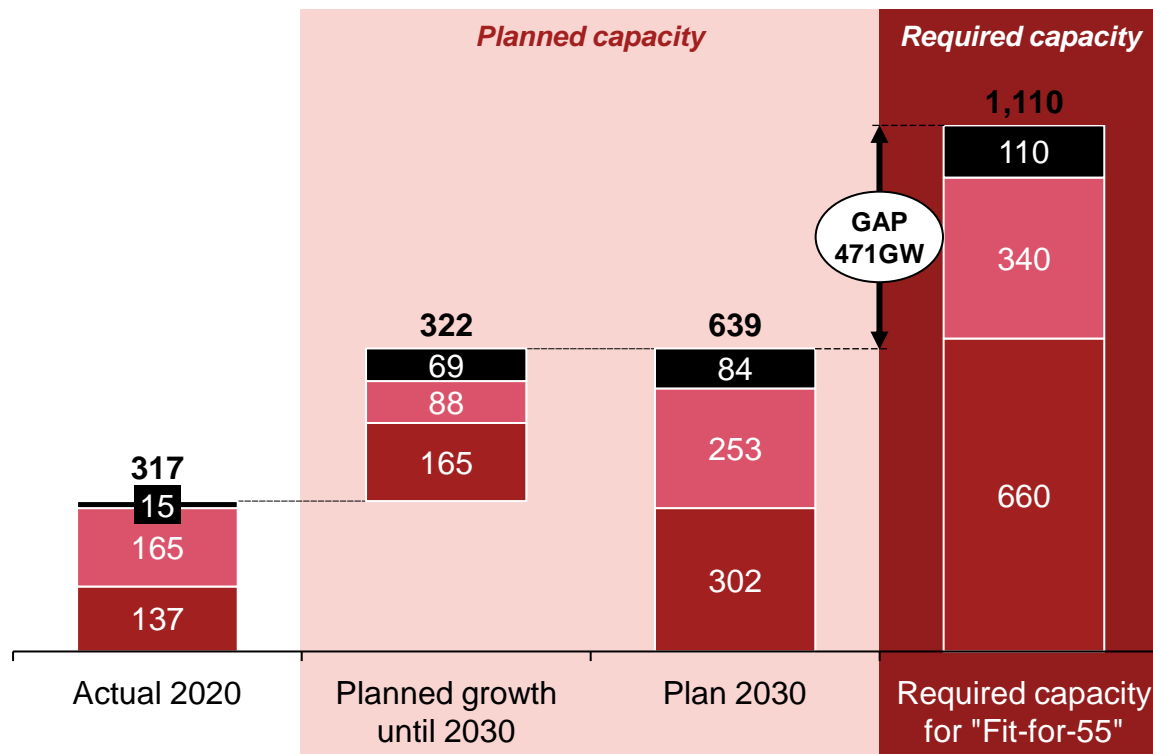
To reach the decarbonization agenda, a major expansion of renewable power production is required in the EU

Project context



RES installed capacity in EU, planned vs. required (GW)

■ PV ■ Wind onshore ■ Wind offshore



- **The RES planned capacity additions in EU till 2030 are already ambitious** as the amount of renewables projected to be deployed in the next 10 years is equal to what has been deployed in the last 20-30 years
- **However, a significant gap still remains between the planned capacity and the capacity required to reach the "Fit-for-55" targets**
- **The RES capacity additions in the next decade will need to be ~2.5x the current planned additions to meet the targets** and a significant ramp up is needed especially in the case of solar PV
- **Capacity required to meet the targets would mean:**
 - ~30 GW capacity addition wind p.a. instead of planned ~15 GW (+100%)
 - ~50 GW capacity addition PV p.a. instead of planned ~15 GW (+250%)

The project objective is to facilitate renewable PPAs in Energy Community Contracting Parties to meet climate targets

Project objective

	<i>Objective</i>	<i>Description</i>	<i>Output</i>
1	Uptake of Renewable PPAs	<i>Promotion and facilitation for the increased adoption of PPAs within Energy Community Contracting Parties, focusing on creating favorable market conditions and awareness</i>	Proposed recommendations to overcome barriers, including amending national legislation, defining market preconditions, adjusting policies within NECPs and including compliance with the Carbon Border Adjustment Mechanism (CBAM)
2	Impact assessment and PPA variability	<i>Evaluation how PPAs contribute to achieving the 2030 RES targets, exploring both virtual and cross-border PPA models, and ensure their alignment with environmental regulations such as the Carbon Border Adjustment Mechanism (CBAM)</i>	
3	Legal & regulatory framework enhancement	<i>Conduct a thorough analysis of existing legal and regulatory frameworks within the Energy Community to pinpoint barriers hindering the implementation and execution of renewable PPAs</i>	Developed recommendations that include legislative amendments, market mechanisms, and policy integrations into NECPs to facilitate renewable PPAs
4	Capacity building and stakeholder engagement	<i>Implementation of capacity-building initiatives to educate and engage stakeholders, including financiers, utility companies, and corporations, enhancing their ability to engage confidently and competently in the renewable PPA market</i>	Utilize workshops & matchmaking events to provide stakeholders with the expertise and knowledge required to effectively navigate the complexities of PPAs

PPAs benefit developers and offtakers by ensuring stable revenues and secure, cost-effective energy, accelerating EU RES deployment

PPA basic fundamentals




What is a PPA?

Power Purchase Agreements, also known as PPAs, are contracts between two parties—one party generates electricity and the other is looking to use or purchase that electricity.

In essence, the PPA is an agreement to purchase a certain amount of power for a certain price and for a certain amount of time, thereby reducing variability of costs and profits






Producer point of view

-  Bankable tenure of PPA and better access to financing
-  Hedge on the main investment risk – wholesale electricity price
-  More conservative revenues

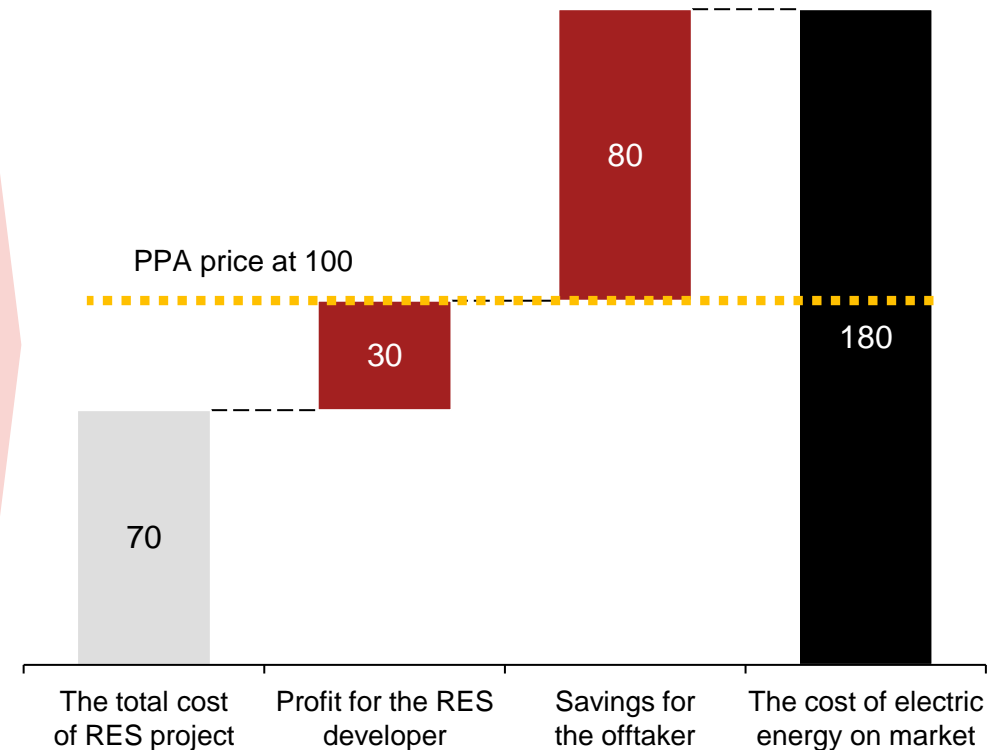


Offtaker's point of view

-  Savings on electricity procurement & long-term hedge on operating costs
-  Buying green energy via GoOs
-  Cost & effort required to sign & implement the contract

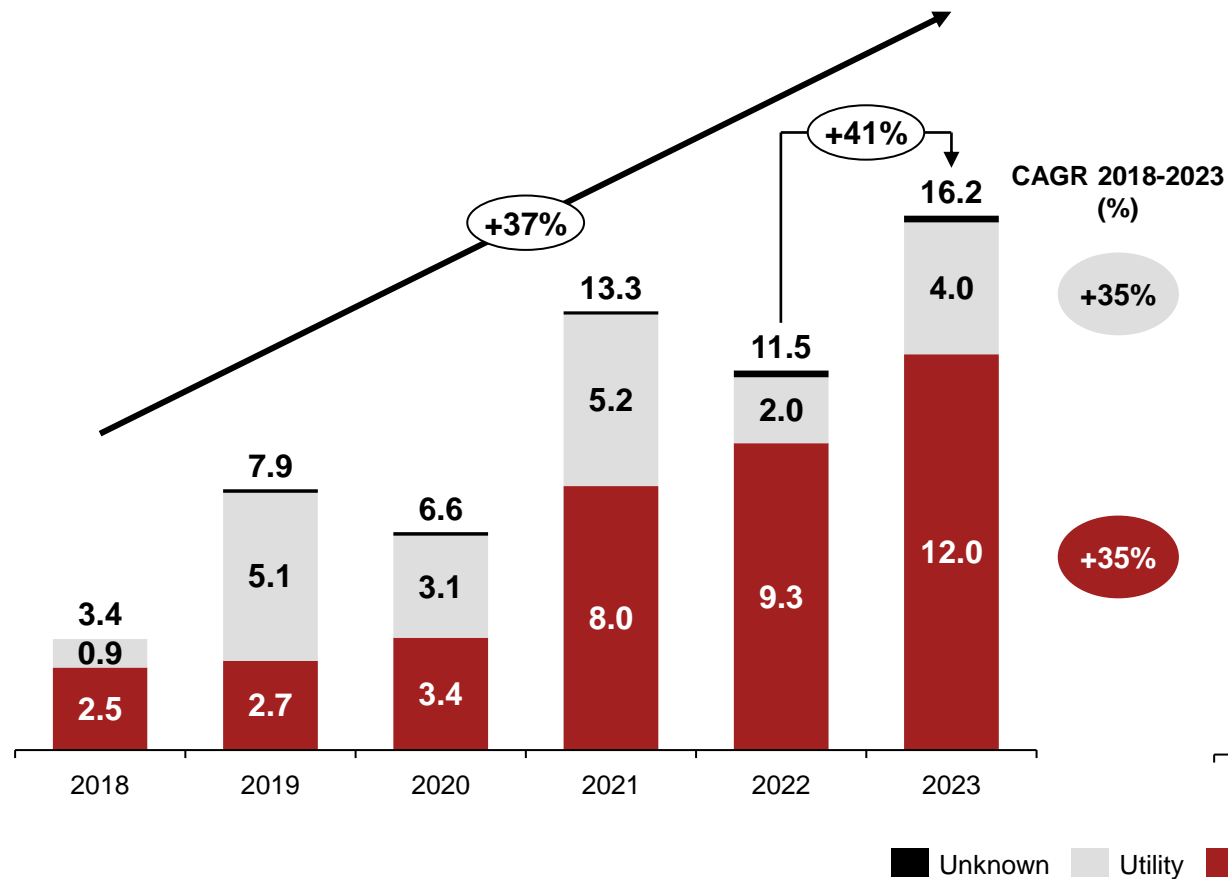
PPA benefits

Illustrative split of profits between RES producer and an off-taker

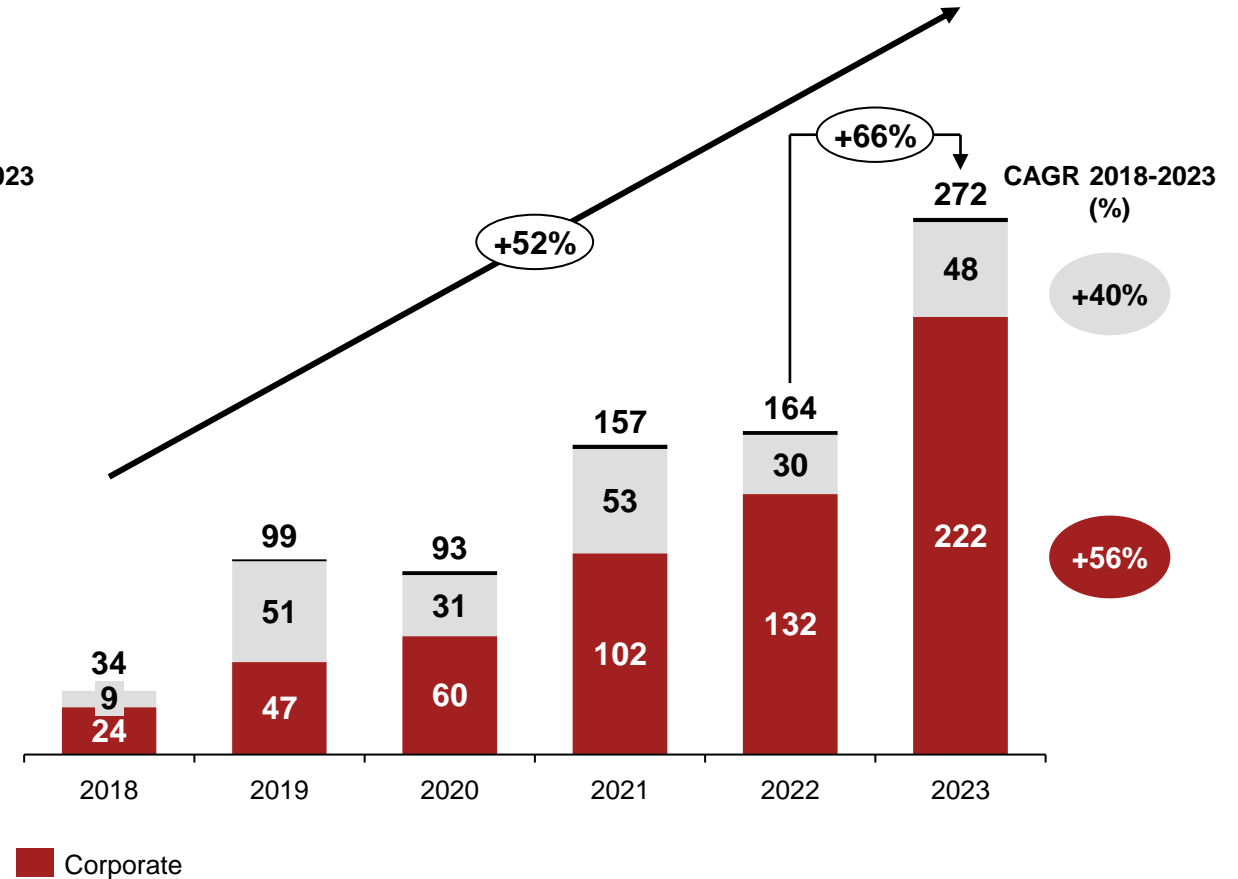


PPA deals in Europe have experienced major growth, with >270 deals closing in 2023 alone, representing >16 GW of RES capacity

PPA deal flow by contracted capacity in Europe
GW, 2018 - 2023



PPA deal flow by deal count in Europe
of deals, 2018 - 2023



Methodology of Power Purchasing Agreement potential in each Contracting Party was based on six key driving factors

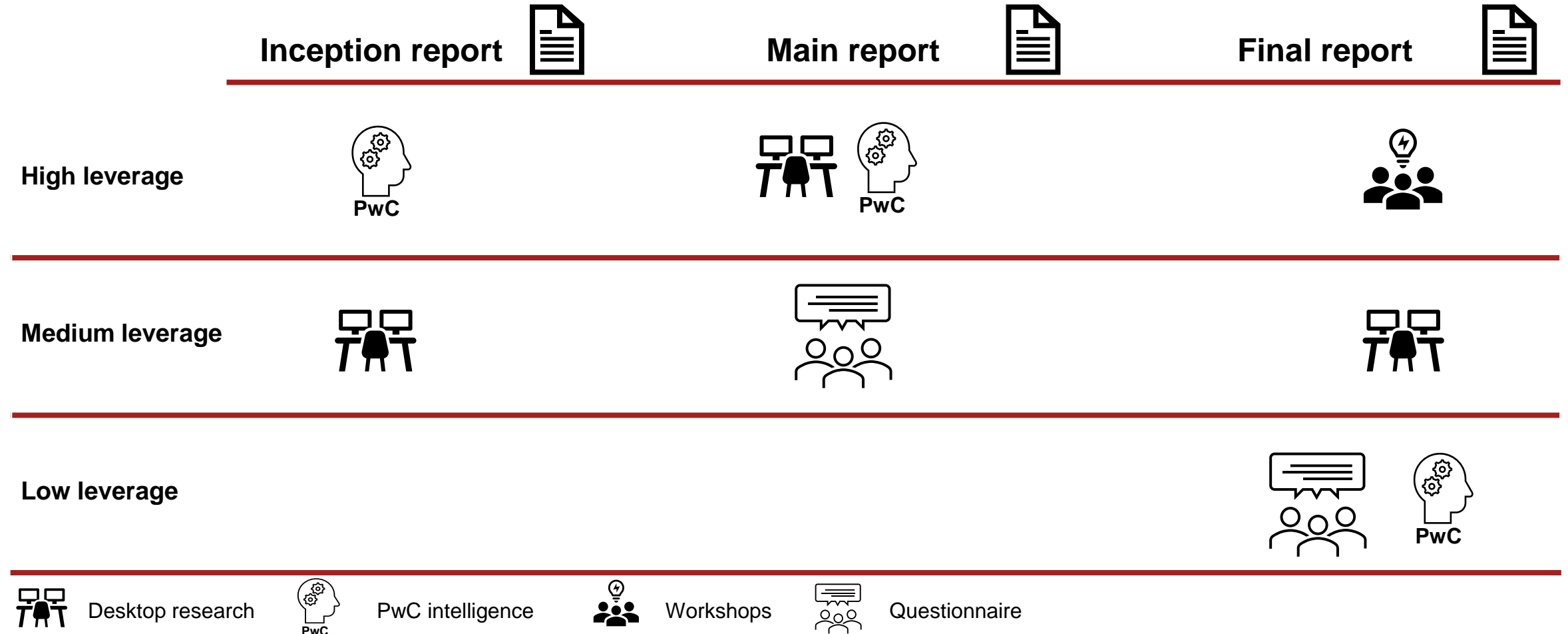
Project assessment methodology

Key PPA drivers	Rationale
RES electricity demand	<ul style="list-style-type: none"> Assess the depth and structure of electricity demand to evaluate market health Determine the propensity to purchase electricity from RES due to ESG agenda, regulatory impact, economic incentive (i.e. electricity prices), etc. to understand demand drivers In scenarios with limited industrial corporate demand, utility PPAs become increasingly pertinent
RES electricity supply	<ul style="list-style-type: none"> Understand investment attractiveness in renewable energy, which is a priority for Contracting Parties Assess formal targets outlined in the National Energy and Climate Plan, such as the percentage of renewable energy in total generation, which are essential for potential PPA volumes
Electricity prices	<ul style="list-style-type: none"> Define market liberalization stage as it plays a crucial role in maintaining competitive retail prices Determine if retail price regulation below wholesale levels in Contracting Parties would present a challenge to the PPA market
Supply options and incentive mechanisms	<ul style="list-style-type: none"> Evaluate the stage of mechanisms such as Feed-in-Premium (FiP), Contracts-for-Difference (CfD), and wholesale market liquidity as they are crucial in encouraging the entrance of RES investors and cultivating a conducive environment for corporate PPAs
Power wholesale market maturity & B2B product	<ul style="list-style-type: none"> To enable the functioning of the corporate PPA market, CPs should ensure the availability of a liquid wholesale market that can support virtual cPPA settlements and/or demonstrate a readiness from suppliers to provide a sleeving option as well as access to spot markets for the execution of physical PPAs
Legal and regulatory certainty	<ul style="list-style-type: none"> Assess ease of investment, transparency in permitting and grid connection, and support for B2B products are essential for fostering or hindering a favorable PPA market environment

Critical signals for PPA potential in each CP

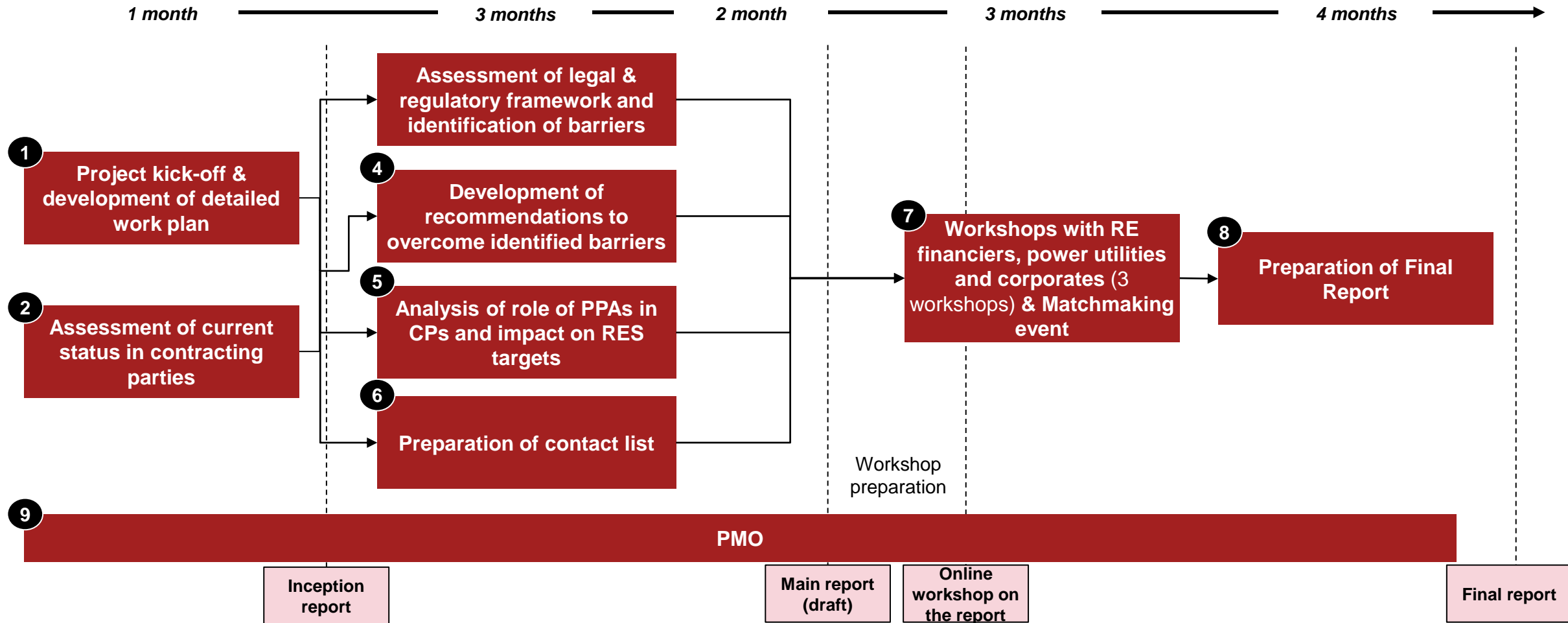
To develop deliverables, desktop available information, PwC's PPA intelligence & experience, and expert workshops are leveraged

Project method to data collection



We are currently working on the draft of the Main report, which is expected to be finalized by mid-May

Our approach and project timeline



Thank you!

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