

# Warsaw Purchasing Group Green Energy Transition

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## Executive snapshot



The City of Warsaw is accelerating its transition toward climate neutrality by transforming how municipal electricity is purchased and supplied. Through the Warsaw Purchasing Group (WGZ), the city coordinates electricity procurement for 962 municipal entities, representing approximately 639 GWh of annual electricity demand across schools, transport infrastructure, hospitals, cultural institutions and public services.

To support the city's climate-neutrality ambitions and the objectives of the “Green Vision for Warsaw”, CCO prepared a comprehensive market analysis and feasibility study assessing pathways for scaling renewable electricity procurement across the WGZ. The work explored the feasibility, profitability and operational implications of several renewable energy purchasing models, including Guarantees of Origin and corporate Power Purchase Agreements (cPPAs).

The study combined technical, financial and regulatory analysis with direct market engagement, including consultations with 13 energy trading companies. Seven suppliers confirmed their capability to deliver renewable electricity volumes and provide security-of-supply guarantees for the Warsaw Purchasing Group. The resulting roadmap provides Warsaw with a phased and scalable pathway toward greener municipal electricity procurement while supporting the city's broader climate-neutrality mission.





# Knowledge Report

## THE IMPACT

The initiative established a practical and evidence-based pathway for Warsaw to significantly increase the share of renewable electricity used across municipal operations. The study confirmed that large-scale renewable electricity procurement for the Warsaw Purchasing Group is both technically feasible and commercially viable.

A key outcome was the recommendation to immediately procure Guarantees of Origin covering 100% of WGZ electricity consumption in future tenders, enabling the city to rapidly advance its electricity greening objectives.

The work also laid the foundation for a future transition toward a corporate Power Purchase Agreement (cPPA) model capable of supplying approximately 30% of WGZ demand directly from renewable generation sources, while maintaining Guarantees of Origin for the remaining volume.

Importantly, the project demonstrated strong market readiness. Consultations with energy suppliers confirmed that the Polish market is capable of supporting renewable electricity procurement at the scale required by Warsaw, including the annual demand volume of approximately 640 GWh.

## THE APPROACH

CCO carried out a multi-stage assessment to evaluate the feasibility of renewable electricity procurement for the Warsaw Purchasing Group (WGZ). The process combined market research, technical analysis, financial modelling and stakeholder consultation.

The work began with an analysis of the WGZ structure, including electricity demand across 962 municipal entities and approximately 5,950 energy consumption points. Existing procurement processes, consumption profiles and renewable energy generation within the group were also reviewed.

The project team then assessed the Polish green energy market, including renewable generation potential, wholesale electricity price forecasts through 2030 and the availability of suppliers capable of serving large-scale municipal demand. Multiple procurement models were analysed, including Guarantees of Origin, physical and financial cPPAs, energy cooperatives and energy clusters.

To validate the findings, consultations were conducted with 13 trading companies. These discussions examined supplier readiness, delivery capacity, pricing approaches and operational requirements for supplying renewable electricity to WGZ.

The study also reviewed legal and regulatory conditions, procurement procedures, implementation risks and examples of renewable electricity purchasing by other Polish and European cities.



## OUTCOMES AND LEARNING

- A comprehensive Final Market Analysis and Study of the Feasibility of Green Energy Purchases for the Warsaw Purchasing Group (WGZ), providing the evidence base and implementation framework for large-scale renewable electricity procurement in Warsaw
- Identification and assessment of multiple renewable electricity purchasing pathways
- Validation of market readiness through market consultations with energy suppliers and seven written confirmations from suppliers capable of delivering renewable electricity volumes and security-of-supply guarantees for WGZ
- Financial modelling and scenario analysis for different levels of renewable electricity procurement across the WGZ, including implementation options for the full purchasing group and selected pilot districts
- A proposed implementation roadmap outlining procurement, contractual and organisational steps required to support Warsaw's transition toward greener municipal electricity procurement

### What worked:

Combining technical market analysis with direct engagement from energy suppliers helped validate the feasibility of renewable electricity procurement at municipal scale. Early consultations with trading companies provided practical insight into supplier readiness, delivery capacity and procurement conditions for large public buyers.

The study also showed the value of analysing multiple procurement models in parallel. Comparing Guarantees of Origin, cPPAs and other renewable procurement approaches enabled Warsaw to better understand the operational, legal and financial implications of different implementation pathways.

### Transferable insight:

Cities managing large and diverse municipal electricity portfolios can benefit from centralised procurement structures when scaling renewable electricity purchasing. Aggregating demand across public entities can improve market attractiveness, strengthen negotiating power and support long-term renewable energy planning.

The Warsaw experience also highlights the importance of combining market engagement, legal analysis and operational planning early in the process to prepare public procurement systems for more complex renewable energy purchasing models.

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## NEXT STEPS FOR THE CITY

- Integrate Guarantees of Origin into future electricity procurement procedures covering the full Warsaw Purchasing Group electricity demand volume
- Begin preparation for renewable electricity procurement under a corporate Power Purchase Agreement (cPPA) model, including updates to procurement documentation and contract structures
- Conduct further market consultations with suppliers to refine procurement and delivery models for large-scale renewable electricity purchasing
- Collect and consolidate detailed electricity demand profiles from WGZ participants to support matching renewable generation capacity with municipal demand
- Develop organisational and operational processes required for long-term renewable electricity procurement, including balancing and settlement mechanisms
- Continue progressing toward the objectives of the “Green Vision for Warsaw”, including increasing the share of renewable electricity used across municipal operations and supporting the city’s climate-neutrality pathway

