acwa

Acwa | Article 6 Case Study

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Acwa

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Energy & Water: The Challenges

Billions

Depend daily on:

- Reliable power
- Clean water

Scarcity and affordability

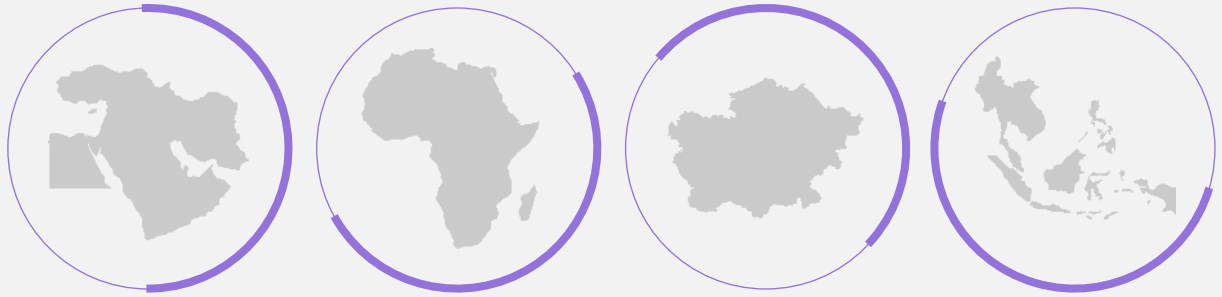
Remain critical issues in many regions.

Rising demand, climate impact, and resource constraints are making **sustainable**, **cost-effective supply** harder than ever.

The need:

Deliver affordable, sustainable, secure, and rapid solutions across the globe, including:

the Middle East, Africa, and Asia.

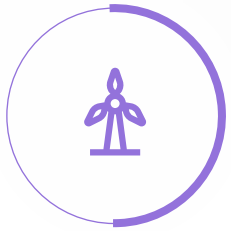


Acwa leverages proven expertise, cost leadership, and innovative technologies to deliver affordable, reliable, and rapid sustainability infrastructure tailored to the unique needs across regions.

Our Mantra

- We are the world’s largest private water desalination company
- We are the Middle East’s largest private power company
- We are a leader in renewable power and green hydrogen
- We deliver electricity, desalinated water, and green hydrogen reliably, sustainably, and cost-effectively
- We are driving the global energy transition
- We create value for communities and shareholders

Values That Define Our Work



Integrity

- Uphold the highest professional and **ethical standards** in how we treat one another, conduct business, and serve our communities, partners, and stakeholders.
- **Commit** to integrity, transparency, and accountability.
- Build **trust**, emphasizing safety and care: making us a reliable and respected partner.

Ingenuity

- **Embrace creativity**, bold thinking, and smart problem-solving to stay ahead in a fast-changing world.
- **Overcome complex challenges** and drive progress while safeguarding our people and ecosystem through continuous innovation and challenging conventional thinking.
- Build a culture that **inspires excellence** across the organization.

Impact

- Commit to making a **positive impact** on people, communities, the environment, and all those we serve.
- Deliver excellence and high performance with a focus on safety, creating transformative progress and **long-term value** in everything we do.

Our Impact In A Snapshot

By creating value and driving progress for people and the planet, we create lasting impact:

USD $124.4B

Assets Under Management

1.2+ MTPA

Green ammonia

Water for 33.9 million people per day*

9.7 million cubic meters

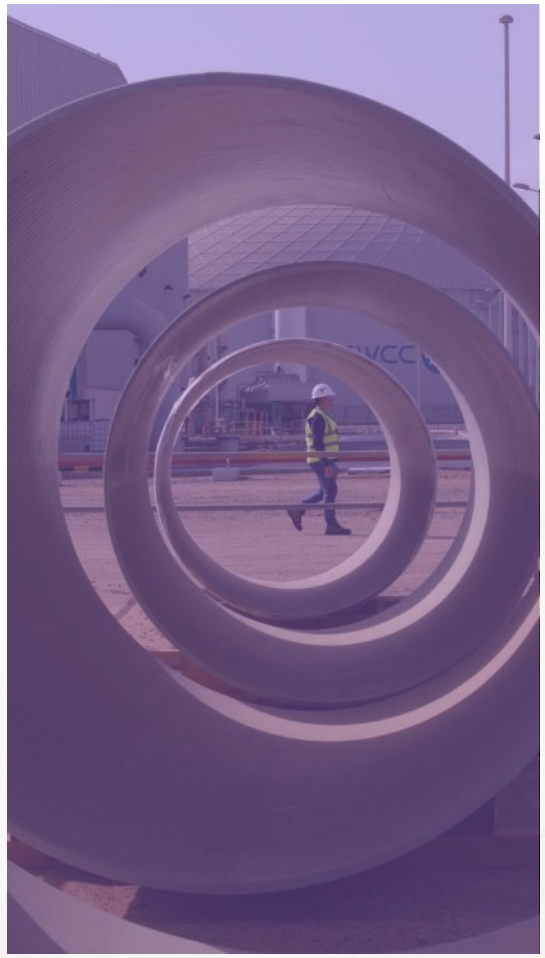
113 assets

15 countries

13 offices

4,000+

Professionals



97.9 GW

= Powering 75.8 million people*

52 GW

Renewables 56% of total power capacity

5.6 GWh

BESS

*Including projects under construction & advanced development

Our Unique Model for Reliable Delivery

Our Business Model:

Capital Mobilization:

1:10

Mobilize USD $10 from our partners for every USD $1 invested

75–80%

75–80% project financing via debt, up to 100% hedging during construction

Robust agreements: PPAs, PWPAs

Our Core Technologies

As a leader in energy transition, the world's largest private water desalination company, and first mover in green hydrogen, we operate across 4 key areas:

Renewables & Storage

- Solar PV
- Solar CSP
- Wind Power
- Battery Energy Storage (BESS)
- Some projects: Noor Energy 1 Plant (UAE), CSP &Thermal Storage - Redstone CSP (South Africa)

Water Desalination

- Sea Water Reverse Osmosis (SWRO)
- Some projects: Shuaibah 3 IWP, Rabigh 3 IWP, & Rabigh 4 IWP

Green Hydrogen

- NEOM Green Hydrogen Project
- Uzbekistan Green Hydrogen Project

Flexible Generation

- Combined Cycle Gas Turbine (CCGT)
- Some projects : Salalah 2 IPP (Oman), Kirikkale CCGT IPP (Turkey)

Accountability in Action: ESG & Responsible Governance

Our Board-led ESG oversight drives responsible, sustainable business practices that are central to Acwa's long-term strategy and operational resilience

Overarching targets:

70/30 green-brown ratio by 2030

Net Zero by 2050

Carbon Avoidance:

2.82M tons CO_2e avoided in 2024 through renewables and efficiency

2024 Total Emissions:

21 million

tons CO_2e **Scope 1** (direct operations)

Scope 2: 0.21M tons (purchased energy)

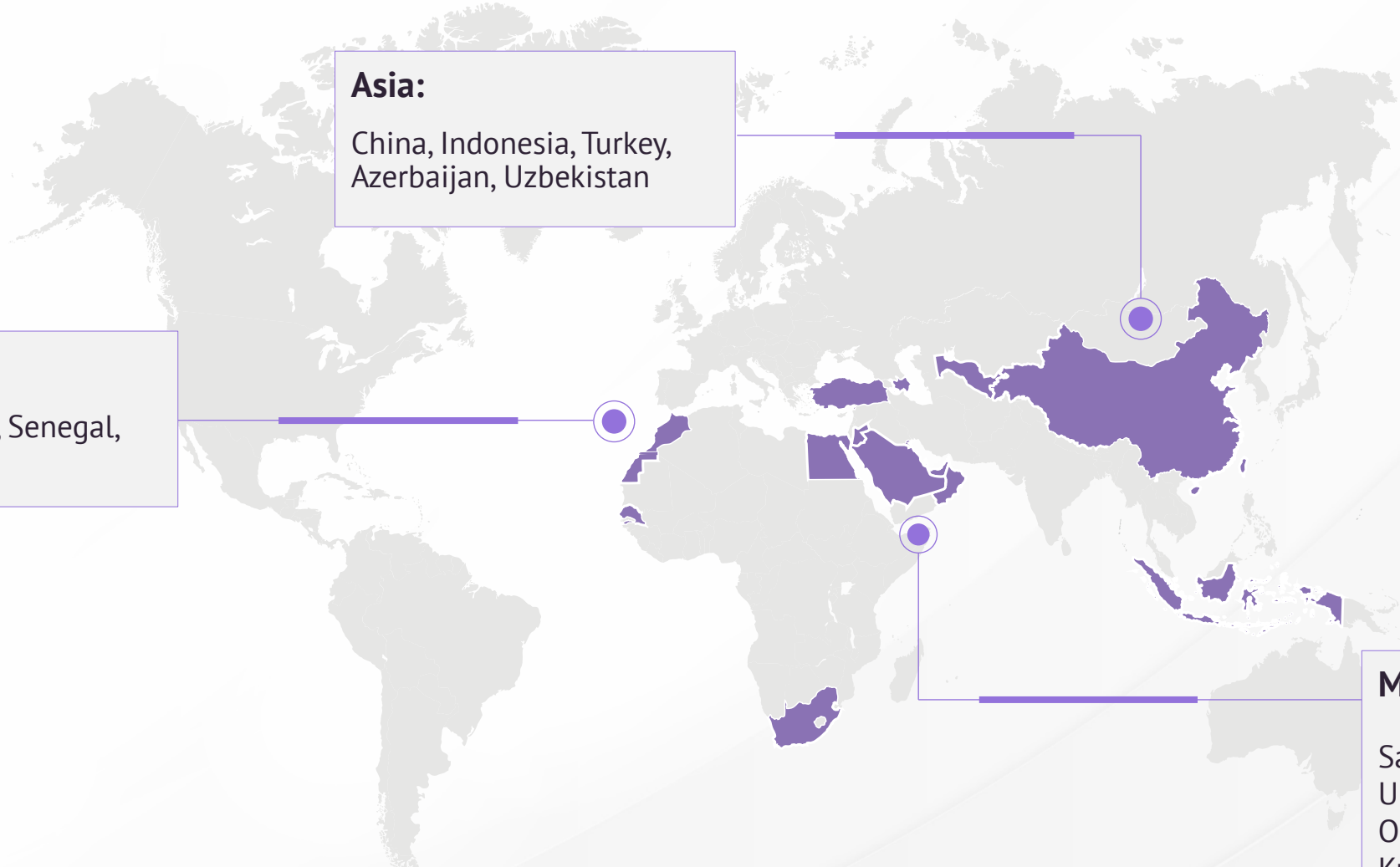
Emission Intensity:

12%

12% **reduction** vs. 2020 baseline

**As of 2024*

Our Global Footprint



Asia:

China, Indonesia, Turkey, Azerbaijan, Uzbekistan

Africa:

Morocco, Egypt, Senegal, South Africa

Middle East:

Saudi Arabia
United Arab Emirates
Oman, Jordan, Bahrain
Kuwait

Acwa in Uzbekistan

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Our portfolio in Uzbekistan grew substantially to offer Wind, Solar, CCGT, BESS and GH2 as the country transitions to green energy and transforms its economy

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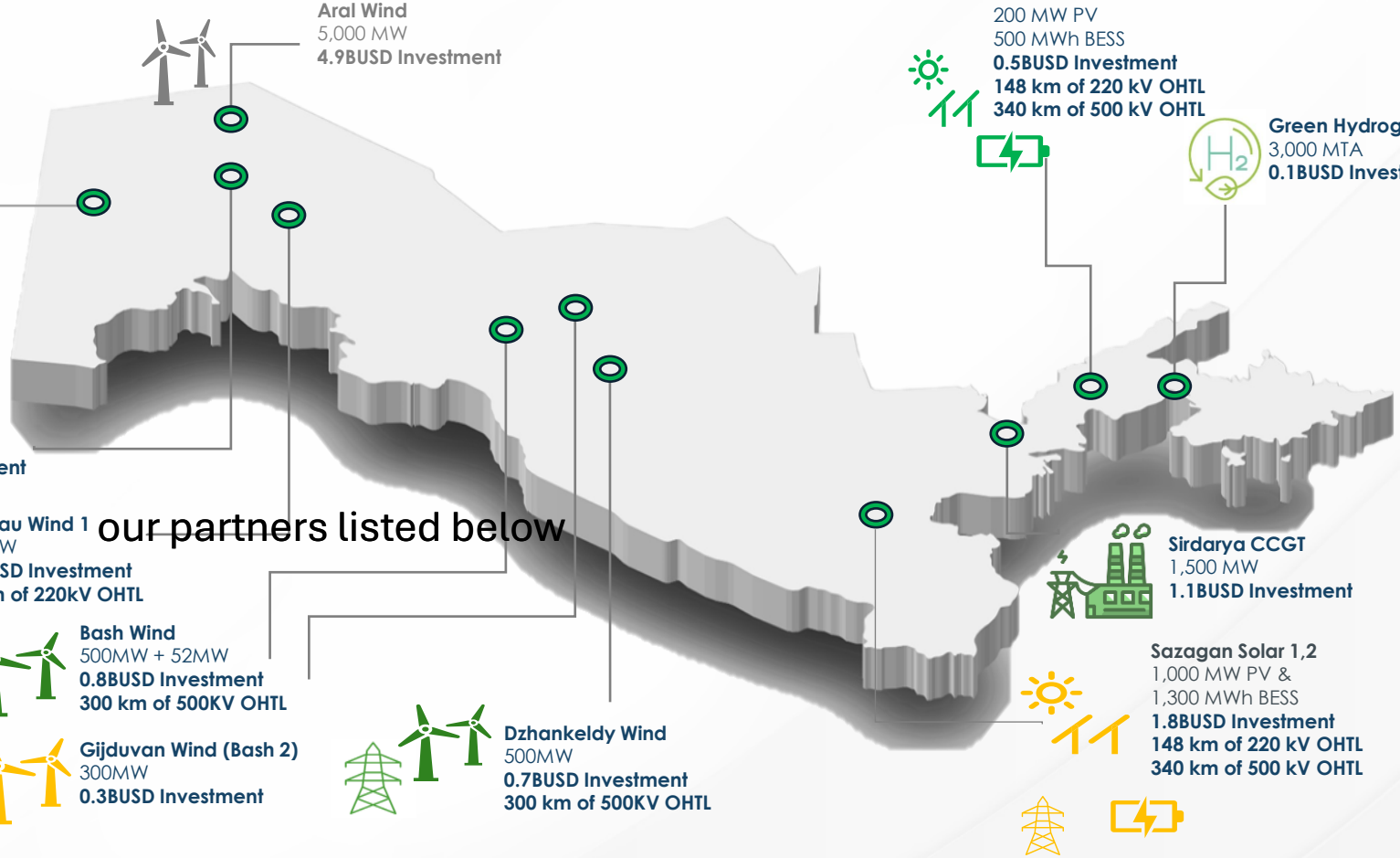
Made in Uzbekistan, For Uzbekistan and the World

Transmission Infrastructure

Investment

Local leadership

Shirin College



Portfolio by Technology By 2031

6 Projects 2,9GW Power 500MWH BESS 3,000 MTA GH2	**3 Wind** (Bash, DZH, Nukus1 **1 Solar and BESS** Riverside **1 GH2+Bash Wind52** **1 CCGT** Sirdarya
5 Projects 3GW Power	**3 Wind** Nukus 2, K 123, Bash2 **2 Solar + BESS** Sazagan 1&2
1 Projects 0.5GW	**1 Wind+BESS** Kungrad 4
1 Projects Aral 5GW Power	**1 Wind** Aral

- **Under construction**
- **Under development** (Early stage)
- **Under development** (Advanced)
- **Commissioned / In operation**

15BUSD Investment

2,084KM of 500kV OHTL by 2030

↓**7.7M** Tons p.a. CO2

↓ **10M+** Tons p.a. CO2 by 2030

1.1BUSD Localisation

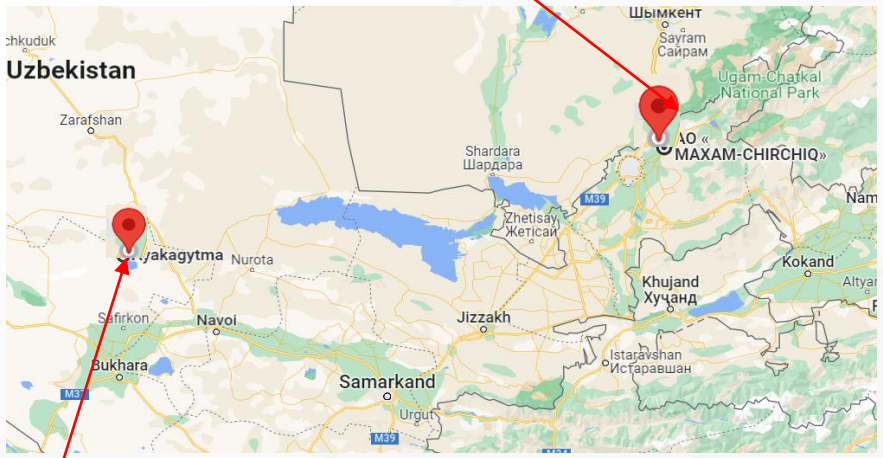
70 MUSD CSR by 2030

11.3 GW Total Committed Capacity

Integrated GH2 Plant with 20MW electrolyzer installation at CHIRCHIQ facility

Key Aspect	Design Capacity & Outputs
Hydrogen Production	20 MW electrolyzer 3000 tons Green Hydrogen per year
Location of electrolyzer	At CHIRCHIQ city, 45 km from Tashkent, co-located with existing ammonia plant : MAXAM-CHIRCHIQ/Navoi
Renewable facility	52 MW wind facility as an expansion of Bash wind project – supplying 175 GWh to the grid and wheeling power to the Hydrogen Production Unit
Hydrogen Purchase Agreement (HPA)	With Uzkimyosanoat (UKS)
Interface Power Purchase Agreement	With National Power Grid of Uzbekistan (NEGU) to backstop the purchase of 100% of the renewable energy produced and deliver through wheeling
COD	**Two Phased COD** COD-1 for the HPA by 1st Dec-2024 COD-2 for the PPA by 1st May-2025
Shareholders	ACWA Power and UKS

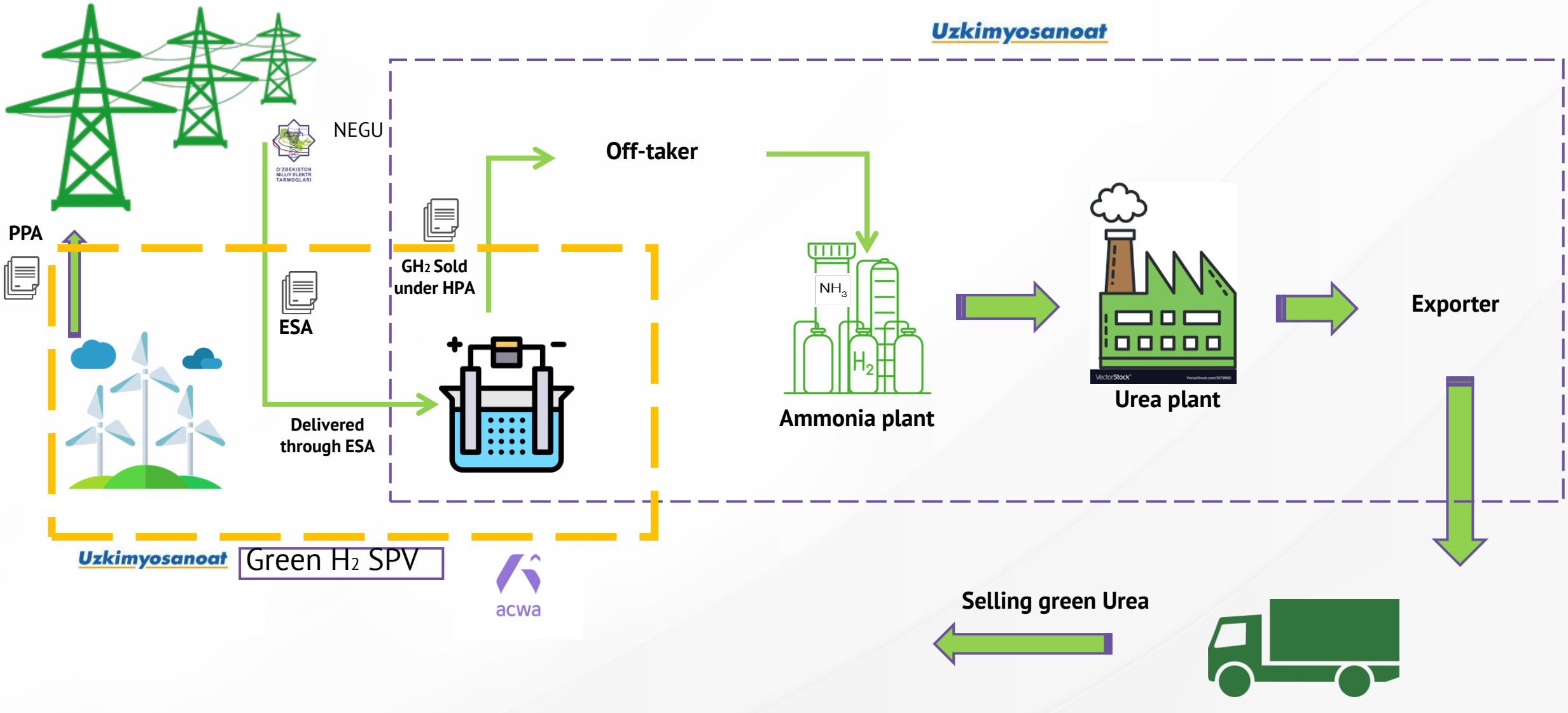
GH2: Deployment of 20MW electrolyzer at consumer end



Renewable energy facility location: collocated with BASH wind farm

Power shall be wheeled using grid as storage and buffer

Project Production Process



Global Environmental Attributes Portfolio

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Environmental Attributes

An active market player in terms of Environmental attribute generation, market creation, and knowledge sharing, our interest spans across main areas:

Emissions Reduction & Avoidance

- Voluntary Carbon Markets
- Emission Efficiency
- GH2 certification
- ITMOs
- Article 6
- Compliance / Regulated Markets

Renewable Energy Certificates

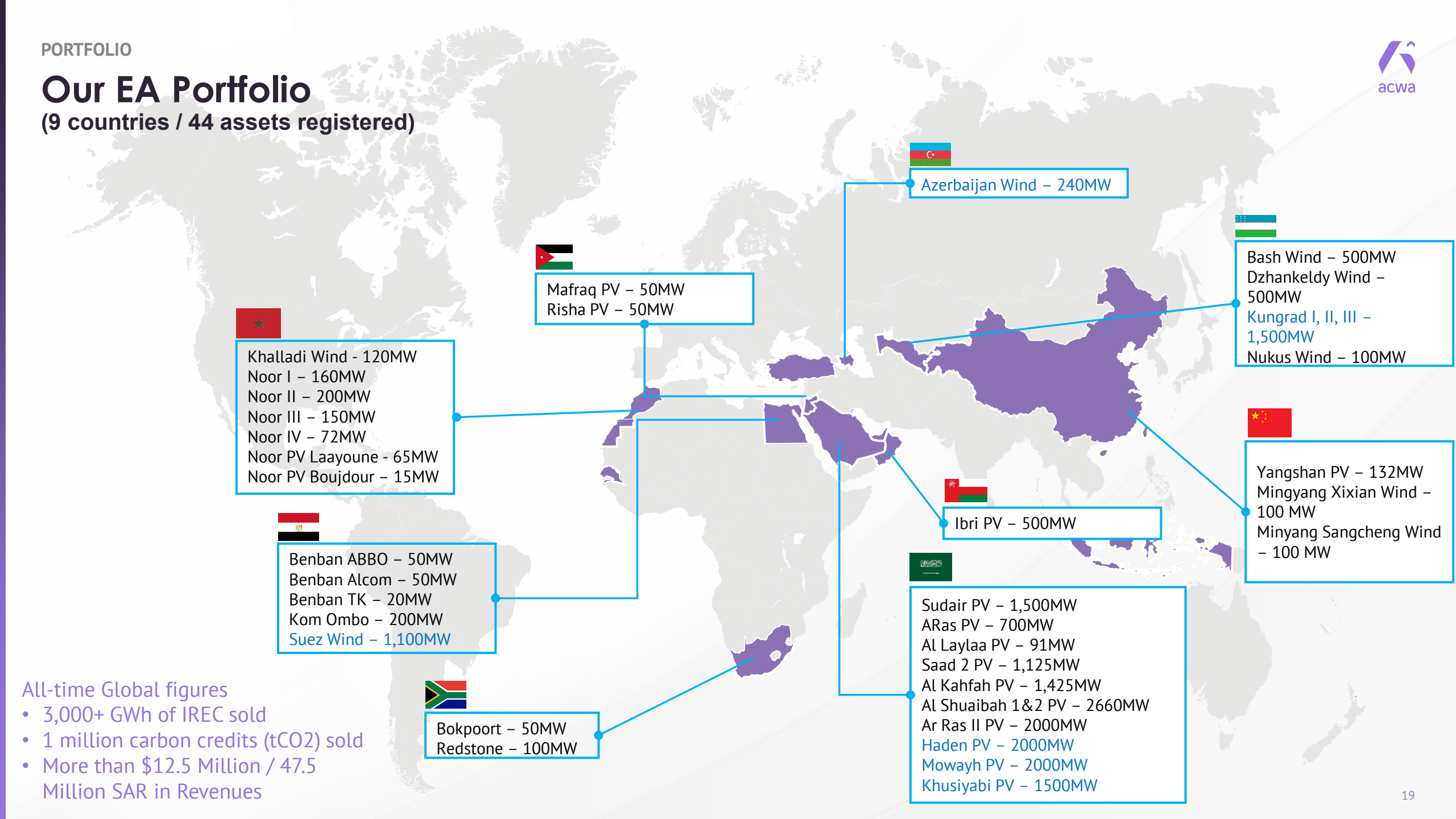
- RECs
- Green energy consumption

Decarbonization

- GH2
- Low carbon water desalination

Our EA Portfolio

(9 countries / 44 assets registered)



All-time Global figures

- 3,000+ GWh of IREC sold
- 1 million carbon credits (tCO2) sold
- More than $12.5 Million / 47.5 Million SAR in Revenues

Article 6 & Country Readiness

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Role of the governments in Article 6 Implementation (6.2)

Governments are responsible for authorizing mitigation activities, approving international transfers, applying corresponding adjustments, and ensuring compliance with UNFCCC rules, making them essential for the generation and transfer of ITMOs under Article 6.2.

Bilateral Agreements

- Willingness to enter into bilateral agreements with other states for the monetization of ITMOs, sovereign commitments, and NDC accounting
- Align on bilateral frameworks relative to certification, accounting, and traceability

Regulatory Framework & Tracking

- Establish a Legal Basis for Carbon Markets
- Designate a National Article 6 Authority
- Define Carbon Ownership Rules
- Establish an Article 6.2 Authorization Framework
- Develop Corresponding Adjustment Procedures
- Establish a National Carbon Registry & approved accounting mechanism / MRV
- Designate a fund manager
- Build Institutional Capacity

Market Opportunities

- Negotiation of bilateral agreements between countries
- Issuance of Letters of Authorization (LoAs)
- Accompany & support private project developers throughout the whole process

Article 6.2 Implementation in Morocco – Case study

Morocco has become one of the most advanced Article 6 countries in Africa and the MENA region, by progressively putting in place the institutional, legal, and operational foundations needed to actually transact ITMOs under Article 6.2.

Morocco / Switzerland Collaboration

MADD (Mitigation Activity Development Document)

- Identification of Eligible Activities
  - Renewable energy; Rooftop solar; Energy efficiency; Industrial decarbonization.
- Preparation of a MADD
- Host Country Assessment
- Authorization
- Monitoring and Corresponding Adjustments
- Designation of a fund manager to track & process the flow of ITMOs & finances

Morocco / Norway Collaboration

DAPA / GBI (Designing Article 6 Policy Approaches / Generation Based Incentives)

- Renewable Energy Pipeline Identification
- Results-Based Payments
- ITMO Transfers
- Monitoring and Corresponding Adjustments

Morocco's National Article 6 Ecosystem

- Procedures for project screening and authorization;
- Processes for granting Corresponding Adjustments;
- National accounting systems aligned with UNFCCC requirements;
- Capacity building within ministries and public institutions;
- Carbon market governance structures;
- Development of a broader climate and carbon market legal framework

For more information, please visit:

www.acwapower.com

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