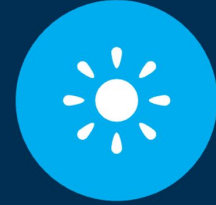# AI Adoption for Future Procurement in Vietnam Electricity (EVN)

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EVN Brief Introduction

Power generation
- Total capacity: **29,865 MW** (**~38%** of Vietnam's power source);
- More than **30 large power plants** (hydro, thermal, etc.).

Transmission
- Own and manage **100%** of power transmission system in Vietnam.

Distribution
- Manage and operate **100%** of power distribution and electricity retail to residents in over Vietnam;
- Sell electricity directly to over **30 million customers**.
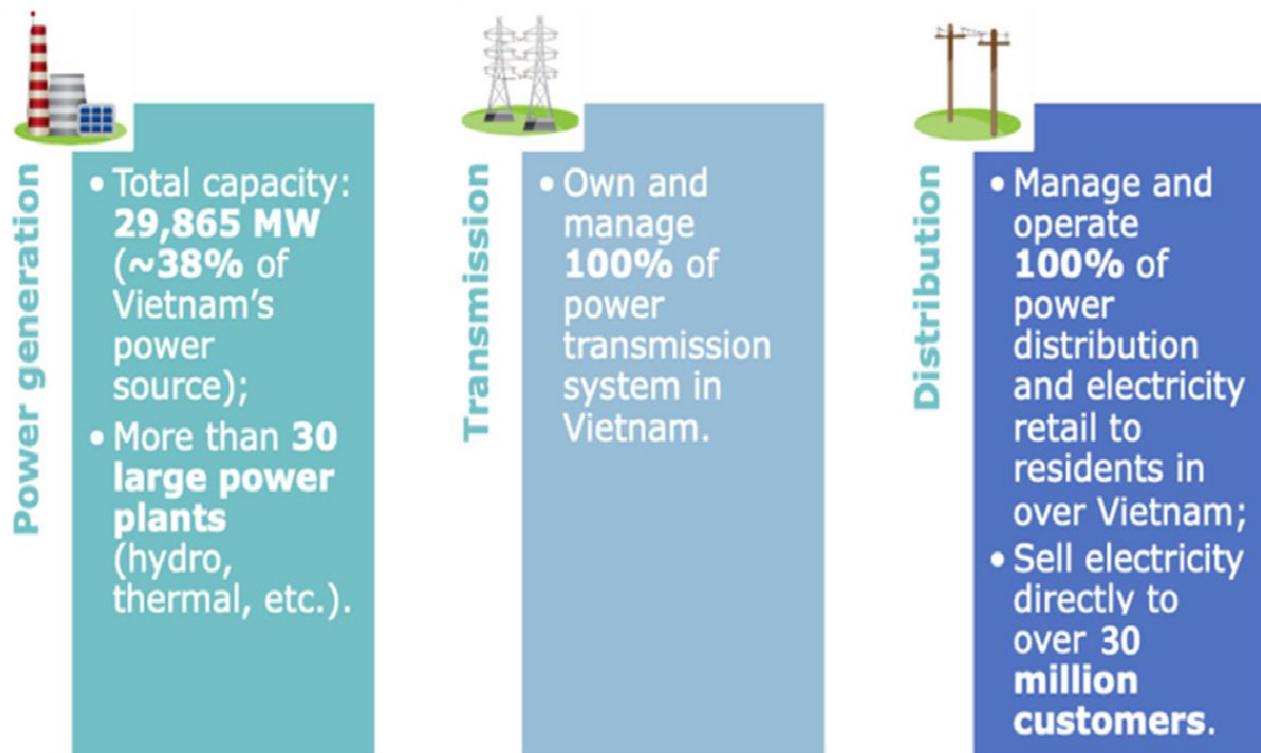
2024

- Total revenue: 575,000 bil. VND ($23.4 billion)
- Sales electricity: 276.4 bil. kWh
- Customers: 31 mil.
- Employee: 97,000
- Number of Procurement Packages: 19,412
- Total Procurement Costs: 132,483 bil. VND ($4.8 bil.)
- Number of E-bidding Packages: 12,834 (66.1%)
- Costs of E-bidding Packages: 78,863 bil. VND ($3.2 bil.) (59.5%)

EVN Procurement Dashboards– Data analytics tool

- Dashboards developed by World Bank's procurements expert, using EVN's procurement data to analyze different factors of procurement activities (eg. time management, cost management, competitiveness ratio, bidders/suppliers' information management, numbers of contract awarded to one bidder, etc.);

- Dashboards is currently being customized by EVN's IT personnel and put into operation since 1 January 2025;

- Dashboards assist EVN's management levels to:
  - acknowledge real-time bidding data and see how the procurement system work;
  - identify risks during bidding process; and
  - react properly/promptly in order to adjust internal procurement policy, manage the procurement activities and mitigate the risks in order to ensure the accountability, control the timing and cost-management of the bidding process.
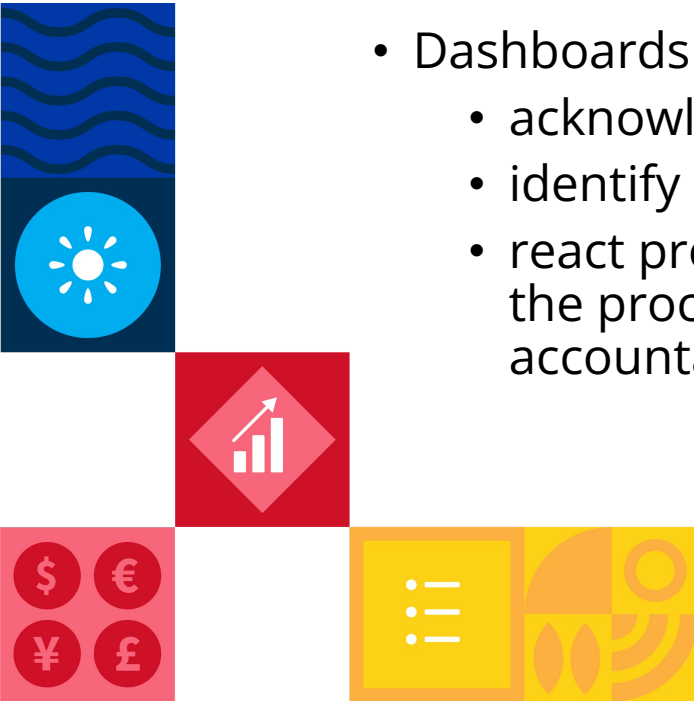
EVN Procurement – Dashboards for Management
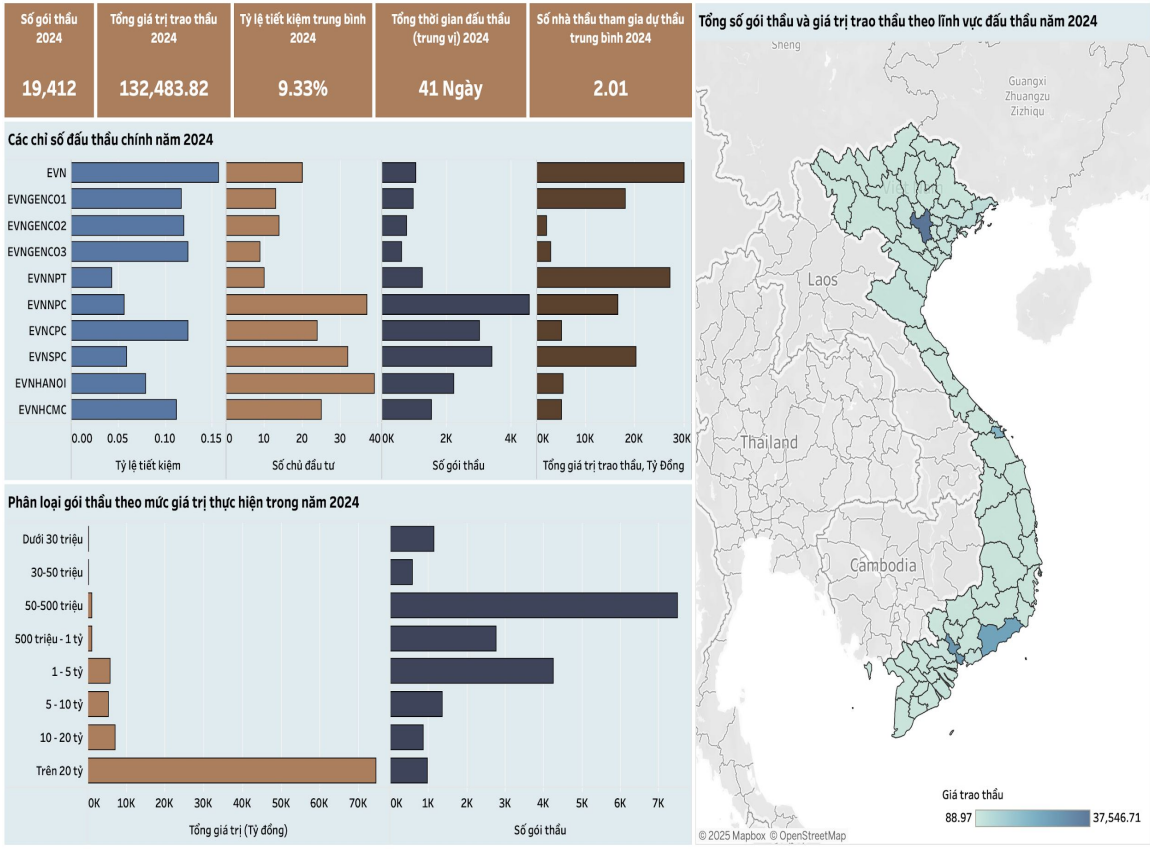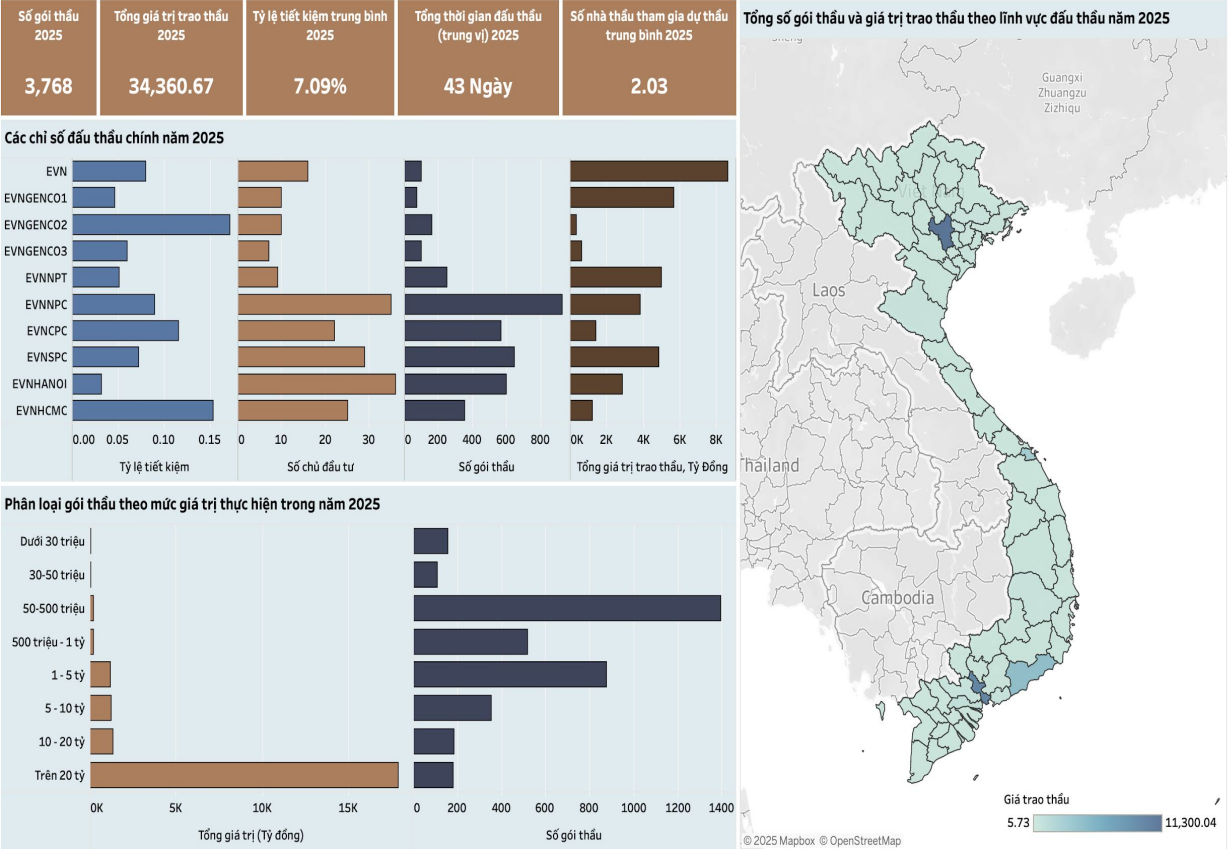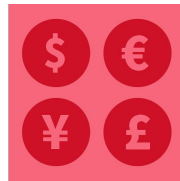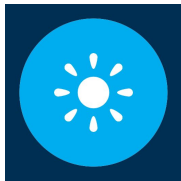
EVN Procurement – Future AI adoption

- Benefits: AI can significantly enhance procurement activities by automating tasks, improving decision making, reducing risks, increasing overall efficiency and transparency

- Selected stages of EVN's procurement will utilize AI tools:
  - Procurement Plan/Strategy: using big data to have the updates information on the market, to identify bidders having most relevant experience and capability for specific project, to make decision on dividing the bid packages, estimating costs based on market price, selecting the right time for request for proposals…;
  - Assistance in bid evaluation (eg. auto scanning the bid proposals, make preliminary evaluation, assess bid price again market data to detect overpriced or unreasonable low offers…);
  - Fraud and collusion detection: by analyzing historical data to detect unusual information:
    - A bidder be awarded many contracts;
    - Overpriced offer for similar goods/equipment…
  - Compliance Monitoring: continuously monitors procurement activities for compliance with EVN's internal policies and procurement regulations;
  - Assessment of bidders/suppliers on their previous performance.
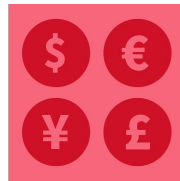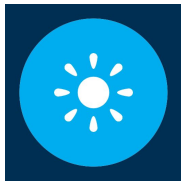
EVN Procurement – Future AI adoption

Main obstacles for AI adoption in EVN:

- Data quality and availability;

- Integration difficulties: different platforms not compatible (eg. EVN's procurement system and Government systems such as E-bidding, E-Tax not yet integrated for sharing data);

- Lack of inhouse AI skills and expertise;

- High cost for AI solutions.

EVN Procurement – Future AI adoption

Future actions for AI adoption:

- Cleansing and enriching the bidding data collected;

- Working with government agencies to find out the integration solutions for relevant systems;

- Training inhouse AI personnels and procurement officers;

- Locally customize World Bank supported Dashboards to enhance the procurement activities by focusing on ensure of accountability, transparency, timing and value for money;

- Plan and develop step-by-step EVN's AI tools in Vietnamese to tailor the needs of EVN's procurement activities (depend on cost spending/investment decision by EVN's board of directors).