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Human capital challenges in the energy sector - business and local government perspective in Ukraine



#### SURVEY METHODOLOGY

#### Goal

The survey was conducted to identify key challenges and development areas for strengthening the capacity of business and local governments in driving the transformation of Ukraine's energy sector with a focus on human capital as one of the key enablers.

#### **Objectives**

- Identifying key challenges for Ukraine's energy sector transformation from the perspective of the business and local governments.
- Identifying main causes of staff shortage in the energy sector, the most deficient skills, and how respondents are addressing these challenges.
- Collecting opinions on the support measures from the government needed to increase the capacity to implement projects in the energy sector.

#### Methodology

The data was collected using a quantitative method through an online survey targeting two distinct audiences – representatives of business involved in the energy sector and local government bodies.

**Survey period:** October 23 - November 8, 2024 **Total respondents representing businesses**: 16

Total respondents representing local government bodies: 155

We are grateful to the All-Ukrainian Association of Local Governments «Association of amalgamated territorial communities, Decentralization portal, American Chamber of Commerce Ukraine and other partners for promoting the survey.



## Key findings



The majority of respondents believe that the national government should play a leading role in driving the transformation of the energy sector. Additionally, both businesses and local governments acknowledge their own responsibility in this process



A significant number of respondents identified **talent shortage** as one of the biggest challenges to energy sector transformation. The shortage is mostly caused by the **impact of conscription**, **general demographic situation in the country**, low remuneration level and mismatch of educational programs with industry needs



According to the survey respondents, the most deficient skills within the energy sector are specialized technical and project management skills, as well as financial planning and investment attraction skills



To address workforce shortages businesses and local governments focus on upskilling current employees, engaging young people and individuals re-entering the labor market and recruiting individuals with transferable skills from adjacent industries

## Executive summary (1/2) – businesses' perspective



	69% of companies believe the <b>government should play a</b>
1	leading role in driving the energy sector transformation.
	However, businesses also recognize their responsibility in this
	process (half of respondents mentioned businesses as a key
	driving force)

69% of respondents indicated that the most sought-after professions include **engineers** both in **traditional energy segments and renewables**. **Blue-collar** and **project-oriented** workers were also highlighted as essential for the industry's future transformation

While the military aggression, a lack of clear vision, and regulatory barriers are the primary challenges to the energy sector transformation, almost half of the respondents (44%) also identified the shortage of skilled professionals as a significant obstacle

To address the talent shortage, most businesses (63%) are currently **recruiting young professionals and those rejoining the labor market**. Half of the respondents noted that they also focus on **training programs** (50%)

Most of respondents (75%) identified **conscription pressure** as the primary factor contributing to staff shortages in this traditionally male-oriented sector. This issue is exacerbated by the **strong competition for talent** in the workforce, demographic crisis and mismatch in required skills

Respondents identified **prioritizing upskilling and reskilling**initiatives as the most effective strategy for meeting workforce demands over the next five years, along with **increasing veteran recruitment**, and **facilitating the repatriation** of Ukrainians

More than half of the respondents identified specialized technical and project management skills as the most deficient, while nearly a third noted a strong demand for skills in financial planning and investment attraction as well as in general management

The Government should maintain transparent processes of reserving potential conscripts to ensure the availability of critical personnel for successful implementation of energy projects.

Deregulation, enhancement of investment climate and education system reforms should also be prioritized



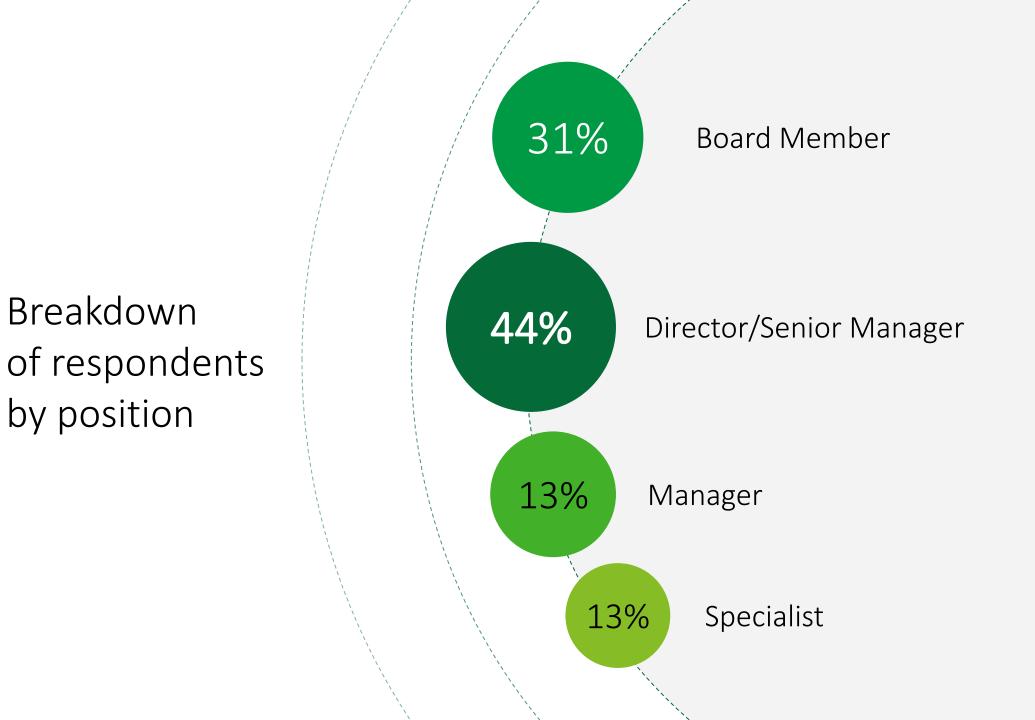
- 79% of respondents believe the government should lead
  the transformation in the energy sector, while 39%
  acknowledge the role of local government bodies in
  facilitating these changes
- Over half of communities (54%) cite **conscription pressure** as the main **cause of staff shortages** in this male-dominated sector, followed by **low remuneration level** (45%) and **demographic crisis** (43%)

- Although only 5% of respondents have already developed plans for distributed electricity production, a half are either working on these plans or intend to do this within the next year
- 69% of respondents identified **financial planning and investment attraction skills** as the most deficient on the local level. Over half of respondents also mentioned **technical (56%)** and **project management skills (52%)**

- One fifth of communities have experience of implementing projects on distributed electricity generation or decentralized heating. Of these, 39% have done this with assistance from donor organizations and 36% have implemented projects on their own
- To address the staff shortage, most respondents are currently focusing on upskilling current employees (40%), outsourcing to local contractors (28%) and recruiting talent from adjacent industries (22%)
- While lack of financing (70%) is widely recognized as the primary challenge in implementing electricity generation and decentralized heating projects, the shortage of qualified professionals (33%) is also seen as a significant barrier
- In addition to providing support with **financing**, the government can contribute to higher adoption of energy projects at the local level by focusing on such areas as **deregulation**, **training** and **communications** (awareness campaigns)



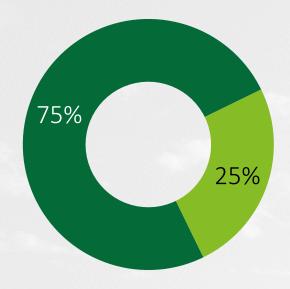
BUSINESSES – PROFILE CHARACTERISTICS



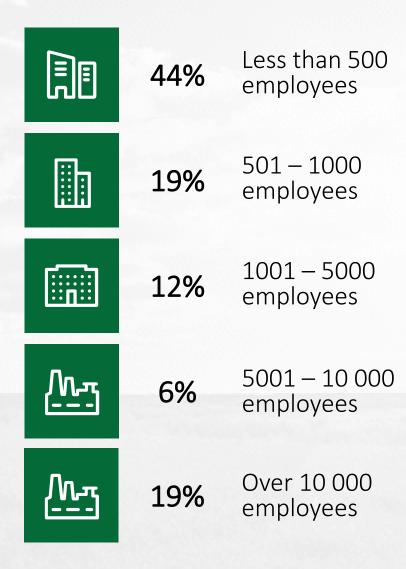
### Breakdown of respondents by industry and company size



Does your organization operate within the energy sector?



- Yes, the company's primary business is in the energy sector
- No, but the company has a subdivision in the energy sector



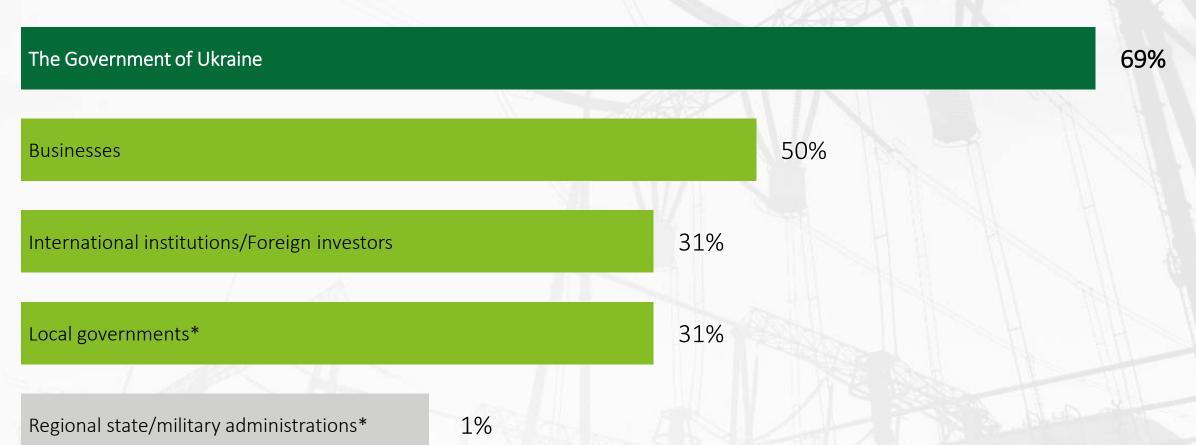


CHALLENGES IN THE ENERGY SECTOR TRANSFORMATION

Majority of the respondents believes the **national government should play a leading role** in driving the energy sector transformation. However, **businesses also recognize their responsibility** 



Who should drive Ukraine's energy sector transformation? (multiple choice)



<sup>\*</sup>Local governments are democratically elected bodies that independently handle local governance and community needs, while Regional State and Military Administrations are appointed by the central government to implement state policies and coordinate governance at the regional level, particularly during emergencies or martial law.

While **military aggression** and **regulatory barriers** pose the biggest challenges to energy sector transformation, **the shortage of skilled professionals also remains a significant obstacle** for almost half of the respondents



What are the main challenges in transforming Ukraine's energy sector from a business perspective? (multiple choice)

56%	Security threats due to the armed aggression of russia
50%	Regulatory restrictions
44%	Shortage of skilled professionals
44%	Investment protection
44%	An unclear strategy for industry development
44%	Government pricing and tariff policies
13%	Insufficient R&D activities
6%	Lack of essential infrastructure
6%	Challenges in local manufacturing of equipment
6%	Developing supply chains
6%	No significant challenges faced
	50% 44% 44% 44% 13% 6% 6%

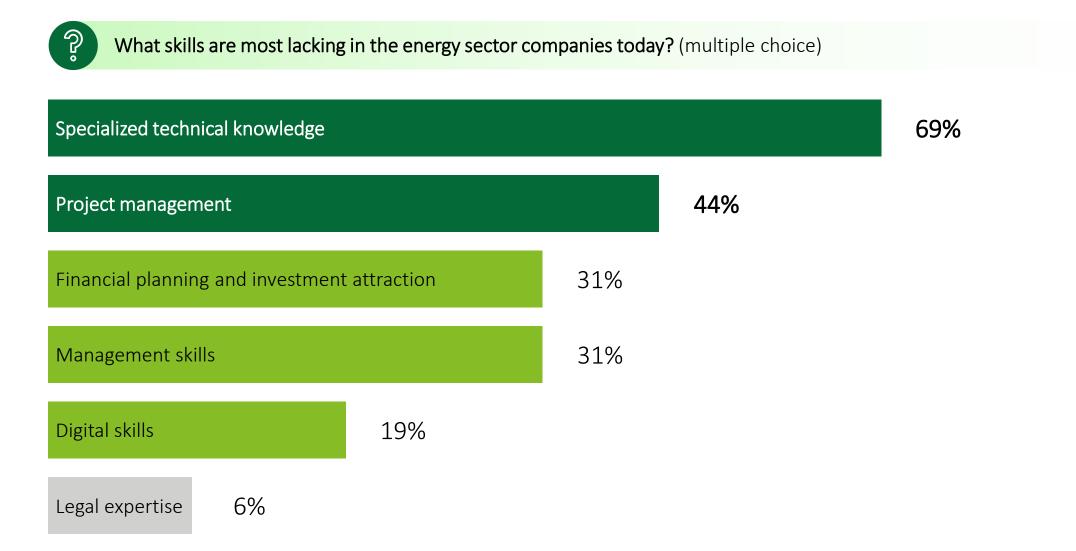
HUMAN CAPITAL
CHALLENGES
IN THE ENERGY SECTOR



**Conscription** is a primary factor causing **staff shortage** in the sector as it was traditionally men-dominated. This trend is **exacerbated** by **worsened demographics**, **skills mismatch** and **low industry attractiveness** 



**Specialized technical and project management skills** were highlighted as the most deficient nowadays. Additionally, there is a strong demand for financial planning and investment attraction skills



The most sought-after professions include specialists in both traditional segments and renewables. Blue-collar and project-oriented workers are also vital to the industry's future transformation



Which professions are expected to be most in demand in 5 years?

	Staff roles	Cited by % respondents	Specific positions
- <u>Ö</u> -	Engineers	69%	<ul> <li>Designer of nuclear installations</li> <li>Service engineer (OEM certified)</li> <li>Relay protection and automation specialist</li> <li>Renewable energy specialist</li> <li>Energy storage developer</li> </ul>
	Blue-collar workers	56%	<ul> <li>Electrician</li> <li>Welder</li> <li>Mechanic</li> <li>Locksmith</li> <li>Electrical maintenance technician</li> </ul>
	Management	38%	<ul><li>Investment attraction specialist</li><li>Project manager</li></ul>

To tackle the talent shortage, businesses are recruiting young candidates and those returning on the labor market, investing in employee training and hiring from adjacent industries and competitors

What	What measures does your company take to address the issue of talent shortage? (multiple choice)				
	63%	Engaging young people and individuals re-entering the labor market			
	50%	Training current employees			
	38% Hiring employees with relevant skills from adjacent industries				
31%		Attracting skilled professionals from competitors			
	19%	Retraining women for traditionally male professions			
19%		Engaging local contractors, experts or companies			
	6%	Engaging international contractors, experts or companies			
	6%	Currently, we do not have a strategy to address the issue			

To meet future workforce demands, businesses plan to **prioritize upskilling/reskilling** initiatives, **veteran recruitment and repatriation of Ukrainians** over the next five years

**%** 

What human capital strategies could be most effective in increasing the supply of skilled energy workers over the next 5 years? (multiple choice)

Employee training and retraining programs	75%
Increasing veteran workforce participation	56%
Returning Ukrainians from abroad	31%
Increasing female workforce participation 25%	
Engaging immigrants 6%	
Other* 13%	

<sup>\*«</sup>Decent wages»; «Enhancing of cooperation with the educational institutions».

Considering the impact of conscription, it is crucial to have transparent processes to **guarantee the availability of essential personnel** to drive energy project implementation. The government should also prioritize **deregulation**, **enhancing the investment climate and reforming education system** 

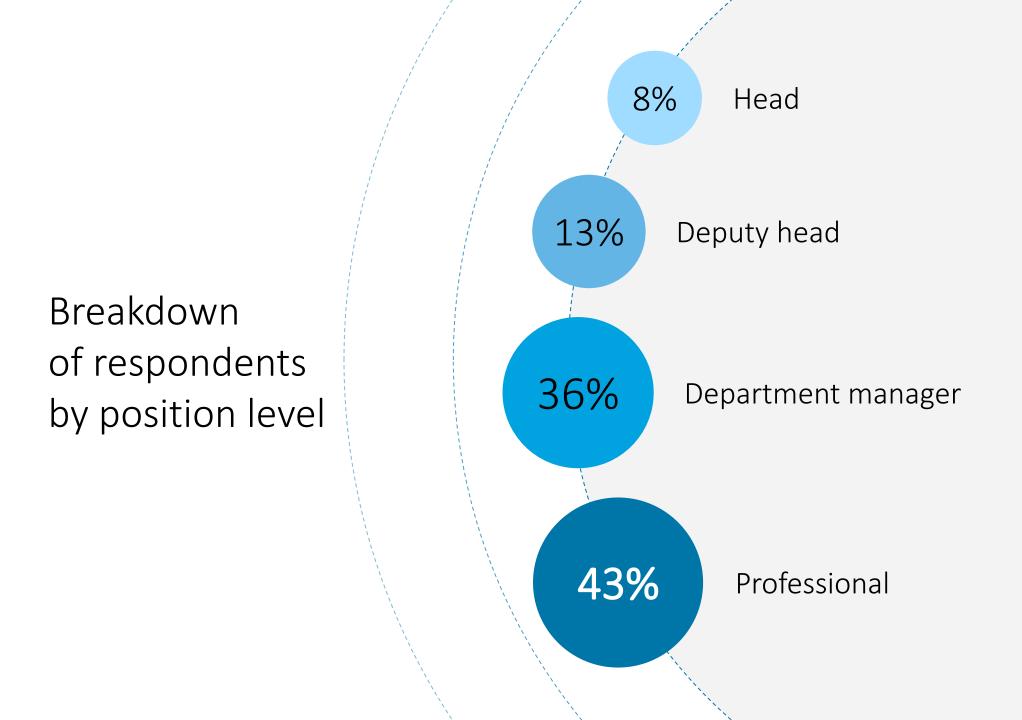


Types of governmental support required to enhance companies' ability to implement energy projects (multiple choice)

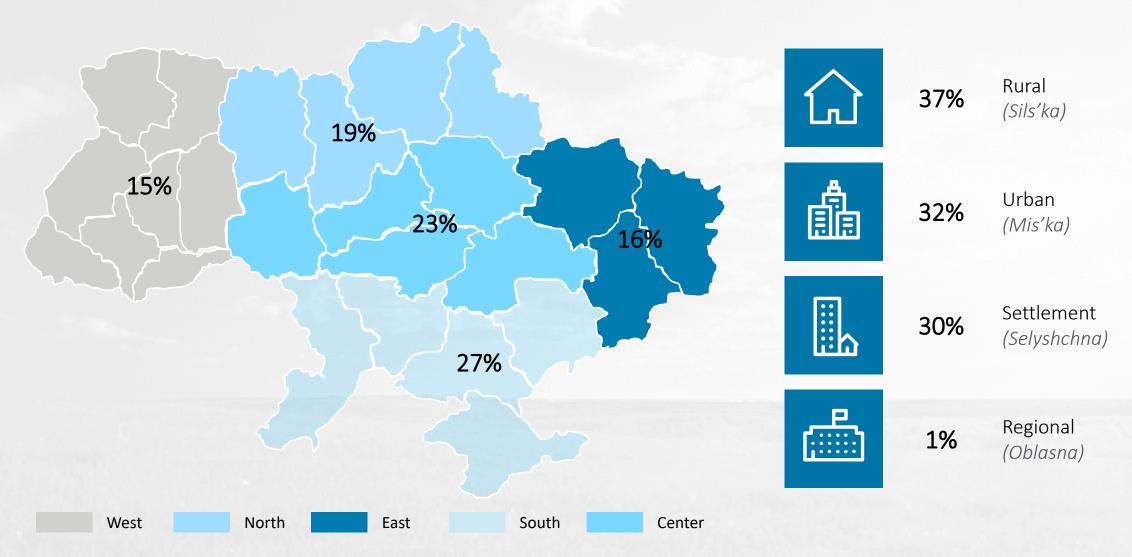
	56%	Providing the ability to reserve key and critical workers
3	38%	Attractive conditions for investment
	31%	Reforming the education system to reduce skills gaps
3	31%	Regulatory changes to simplify project implementation
	19%	Risk insurance programs
	19%	Support of R&D programs
	13%	Tax credit or tax deferral programs
	6%	Other*

<sup>\*</sup>«Adequate tariff-based funding is required for the company's key initiatives and wage fund».

LOCAL GOVERNMENT – PROFILE CHARACTERISTICS

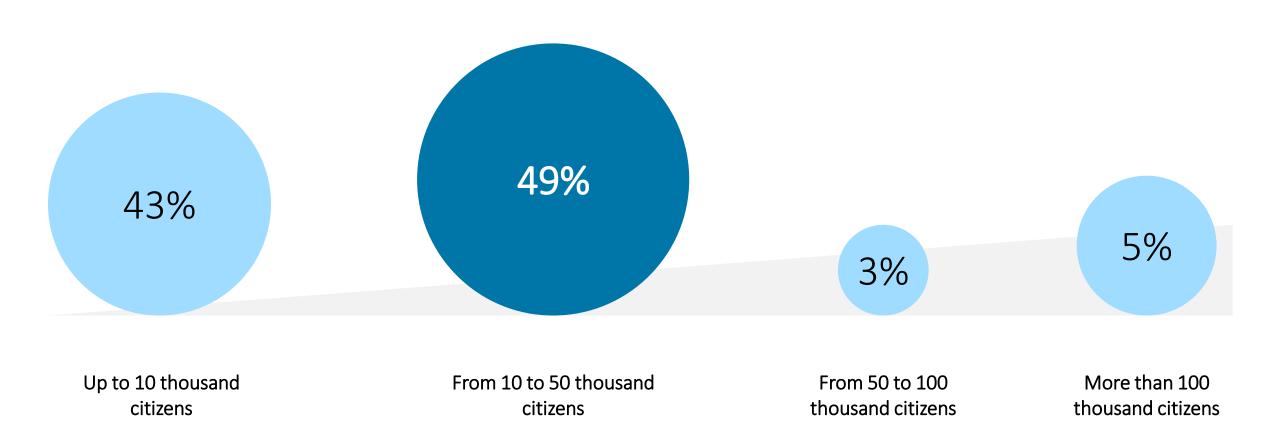


## Breakdown of respondents by region and hromada\* type

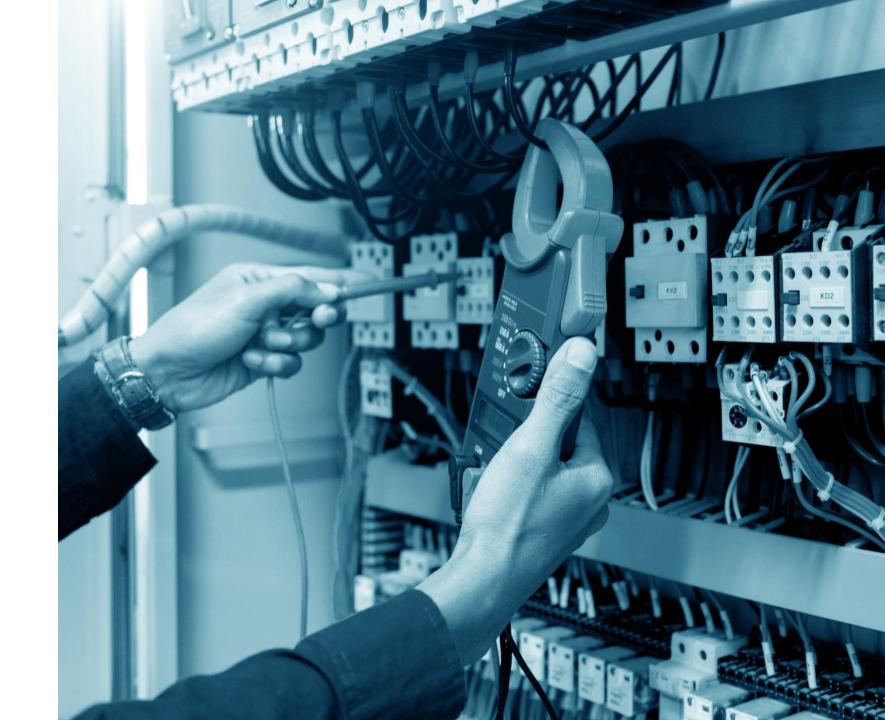


<sup>\*</sup>Hromada (or community, or municipality) is a group of residents united by permanent residence within the boundaries of a village, town, city, which are independent administrative-territorial units, or a voluntary association of residents of several villages, towns, cities that have a single administrative center. Local governments, elected by the hromadas, represent their interests and manage local affairs.

Breakdown of respondents by hromada size (number of citizens)



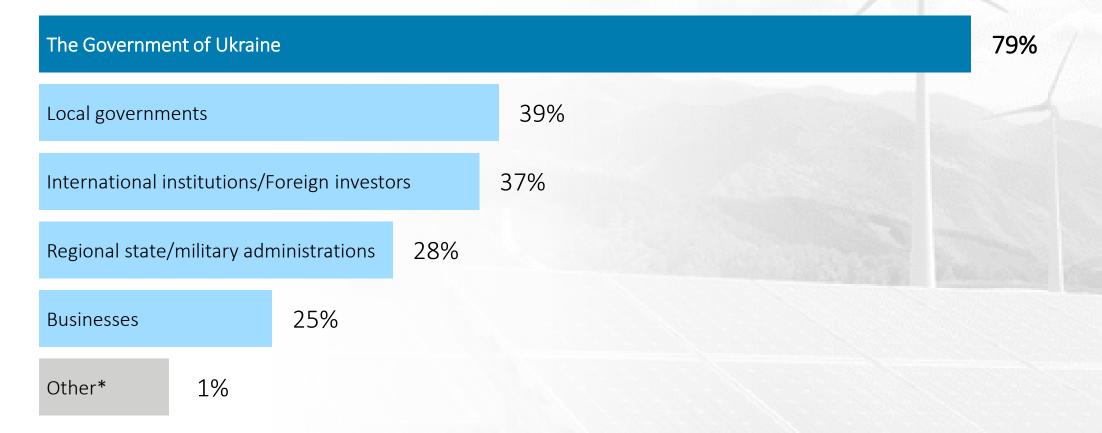
CHALLENGES IN
IMPLEMENTING
DISTRIBUTED ELECTRICITY
GENERATION AND
DECENTRALIZED HEATING
PROJECTS



Most respondents indicated that the **national government should play a leading role** in driving the transformation of Ukraine's energy sector. However, **local government bodies also recognize their responsibility** 



Who should drive Ukraine's energy sector transformation? (multiple choice)



Responses to this question were provided by 155 respondents.

<sup>\*«</sup>State Agency on Energy Efficiency and Energy Saving of Ukraine»; «Hard to answer»; «Individual households».

Only 5% of respondents have developed plans on distributed electricity production, but half of the respondents are either already working on such plans or intend to do so next year

Do you plan to partially or completely switch to distributed electricity production in your community? (multiple choice) Yes, the plan has already been Mostly, respondents from Central and Southern regions developed The plan is under development 15% We plan to deal with this issue in the coming year 35% No, we don't plan to do this in the coming year 41% Other\* 3%

Responses to this question were provided by 155 respondents.

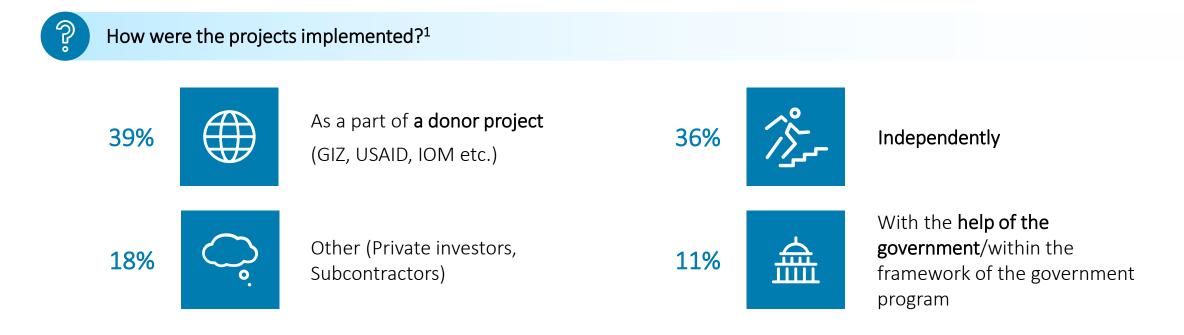
<sup>\*«</sup>The issue will be considered after the end of hostilities/de-occupation of the territories».

Only one fifth of communities have experience of implementing projects on distributed electricity generation or decentralized heating, mostly with support from donor organizations or independently



Has your community implemented projects on distributed electricity generation and/or decentralized heating?<sup>1</sup>

18% from total number of respondents indicated that they have implemented or are currently implementing distributed electricity generation and/or decentralized heating projects



 $<sup>^{1}</sup>$ Responses to this question were provided by 28 respondents (18% from total).

Lack of qualified staff is among the Top-3 challenges that communities face while implementing electricity generation and decentralized heating projects



What challenges did you face during the implementation of such projects? (multiple choice)



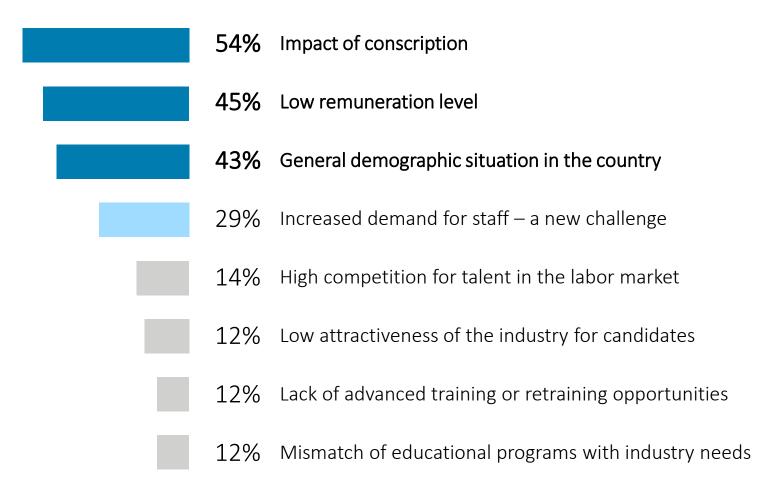
HUMAN CAPITAL
CHALLENGES IN THE ENERGY
SECTOR

The main reasons for staff shortage in the energy sector at the local community level are conscription, uncompetitive remuneration, and overall demographic crisis in Ukraine

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Key causes of staff shortage in the energy sector of Ukraine (multiple choice)





**Financial planning and investment attraction skills** were highlighted as the most deficient for future projects. Additionally, there is a strong demand for **technical expertise** and **project management skills** 

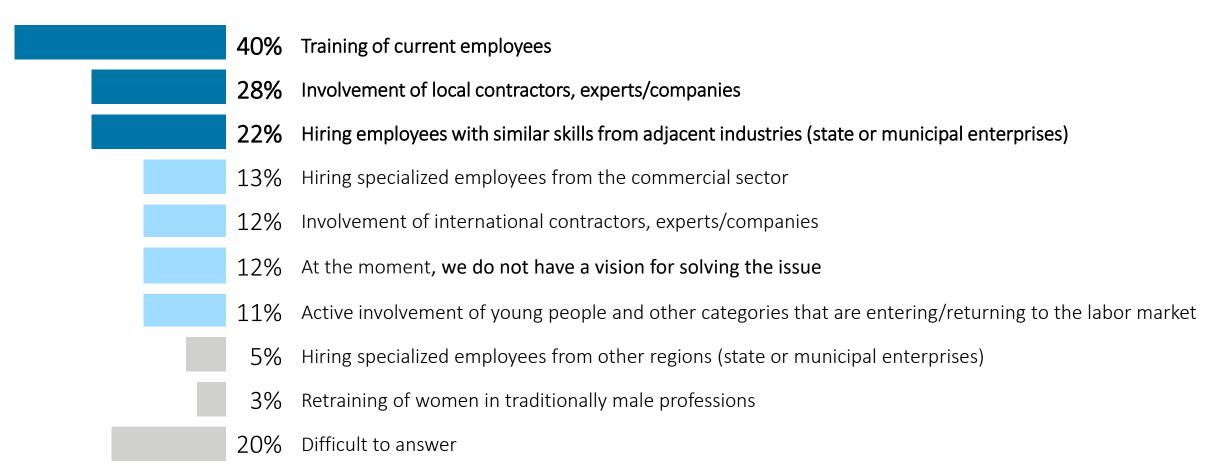
The most in-demand skills in energy sector on the local community level (multiple choice) 69% Financial planning and investment attraction 56% Specialized technical knowledge 52% Project management 24% Legal expertise 19% Management skills Communications and interaction 17% with communities

Responses to this question were provided by 143 respondents.

# To address the staff shortage, most respondents focus on upskilling current employees, engaging local contractors or hiring from SOEs or MOEs in adjacent industries

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How communities solve the issue of staff shortages (multiple choice)

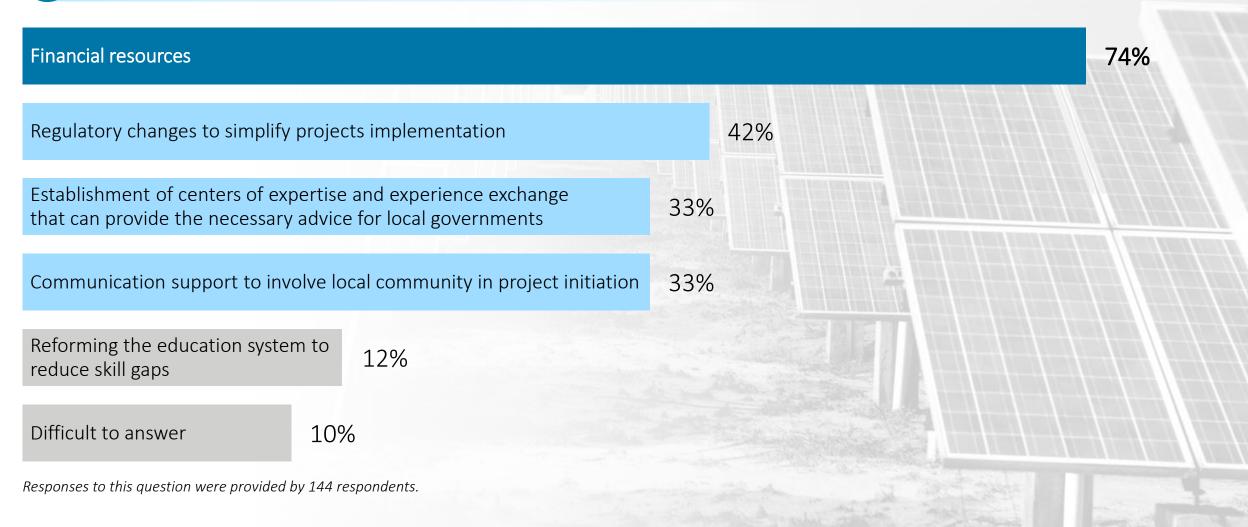


Responses to this question were provided by 142 respondents.

Besides financing, there are other impactful areas such as deregulation, training and awareness where the government can play a crucial role in boosting energy independence in communities

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Government support needed for communities to increase the level of energy independence (multiple choice)



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