

The role of women in sustainable development of the Heating Sector

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Modern heating sector - international trends and challenges for the Republic of Kazakhstan. Webinar Course in connection with the preparation of the “Law on Heating”

Equality in the modern energy sector

Switching to a renewable and decarbonised energy and heating system brings a range of social and economic benefits, including job creation. Importantly, **the new opportunities and benefits must be equally accessible.**

The multidisciplinary nature of the renewable energy industry makes it more attractive to women than the fossil fuel industry.

IRENA's Gender Perspective survey (1,500 women, men and organisations involved in the RE industry from over 140 countries) found that in the organisations that participated in the survey, 32% of full-time employees are women, well above the global oil and gas industry average of 22%. However, the renewable energy industry employs far fewer women in science, technology, engineering and mathematics (STEM) than in administrative roles.



Equality in the modern energy sector

According to a joint study by Kazenergy and the European Bank for Reconstruction and Development, *The Role of Women in Kazakhstan's Energy Sector*, based on a survey of 36 energy companies in Kazakhstan and covering 55,000 employees between 2016 and 2019, women make up on average **around 25%** of the total workforce in the energy sector, with no significant positive change over the past three years.

The survey data shows that women make up only 12% of senior management and 17% of board members in the companies surveyed. A third of the companies surveyed had no women on their boards and almost half of the companies surveyed had senior executives with no women on their boards.



Equality in the modern energy sector

Despite the innovative nature of the renewable energy sector, women face persistent barriers that prevent them from finding, keeping and progressing in employment.

According to a study by Kazenergy EBRD in Kazakhstan, women are more likely to be office workers and under-represented in technical and manufacturing positions:

Women make up **50%** of administrative and managerial staff

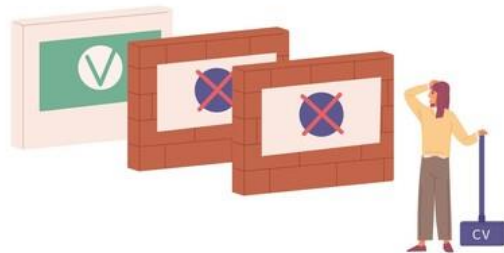
and only **19%** of all technical and production workers



Perceptions → cultural and social norms → solutions.

Negative perceptions of women's abilities in science and engineering often prevail in the energy sector, resulting in low levels of female participation.

Distorted perceptions of gender roles also lead to a lack of access to professional information and relevant women's associations, affecting recruitment practices and the availability of internships and work placements for women.



Perceptions of gender roles

Lack of professional information

Unequal access to career start-up opportunities



A number of factors:

The invisible (glass) ceiling (For example, in half of the companies surveyed, the board of directors is 75% male).

Balance between work and family (especially when having a child.) More often than not, family care and domestic duties are part of women's responsibilities.



Unequal pay. Approximately two thirds of IRENA survey participants believe that women in the RES industry are paid less than men in the same positions.

Flexible working hours, family consideration, mentoring practices, etc. are also not always supported.

In addition, the coronavirus pandemic and its associated restrictions have had different effects on the employment and unpaid workloads of men and women.

Working at home and home-schooling of children has in most cases increased the domestic and childcare workload of working women.



Training and skills development in technical and non-technical areas, business operations and leadership.

Programmes and strategies are needed from both the government and international organisations to support the renewable energy sector, green technologies and gender equality in Kazakhstan.



Attracting and retaining talent through employee support policies - maintaining a healthy work-life balance, providing equal opportunities for professional development.



Revisiting cultural and social norms Developing perceptions of women's different roles in the energy transition and supporting them to become agents of socio-economic change in their communities can have a significant impact on perceptions of gender roles in any context.



Promoting a gender perspective at all levels - both in policy development and in project **implementation**.



International experience in promoting gender *Historical background*

In 1919, the Women's Engineering Society (WES) emerged in Great Britain to advocate for the rights of women technicians. The WES aimed to promote the engineering profession among women as a well-paid job.

In 1950, the Society of Women Engineers (SWE) emerged in the USA. Initially, SWE emphasised women's access to training in engineering. Today, the organisation regularly presents awards to women engineers who have been most active both in the professional field and in technical education and technological entrepreneurship.



In Russia, the professional community "Women in Energy" was established in 2017.

The community declares goals such as ensuring non-discriminatory access to technical professions and providing opportunities for development and mutual support within the industry's women's community.



Promoting gender in the energy sector in Kazakhstan

In Kazakhstan, the **KAZENERGY Women's Energy Club** was established in 2013 to support the development of gender policy in the oil and gas and energy sectors.

Since then, five major forums have been held (in 2013, 2015, 2017, 2019 and 2021), retreats at the sites of major companies (Tengizchevroil, Embamunaigas, Karachaganak Petroleum Operating B.V.), the first gender study in the energy sector in Kazakhstan "The role of women in the energy sector of Kazakhstan".

The purpose of the club: to bring together influential women in the oil, gas and energy sector from around the world to promote issues related to gender policy in the industry.



International experience in promoting gender in the energy sector

In Europe, the involvement of women in the development of necessary technical solutions is a key factor in the transition to clean and safe energy sources.

Last year, the European Union launched the **Women TechEU** programme, which supports 50 women-led technology start-ups with a budget of €3.8 million.

This new initiative offers mentoring programmes for high-level women founders as well as targeted funding to help take their businesses to the next level.

- Individual grants of €75,000 for company start-up and growth
- Mentoring, including networking and presentation activities
- Opportunity to participate in special events organised by InvestEU and Enterprise Europe Network



According to the study "The Role of Women in the Energy Sector in Kazakhstan"

- In the RES sector, the share of women among company employees is on average 17%
- women are mainly administrative employees;
- Women are underrepresented in production and management positions;
- women are in the minority of entrepreneurs in the RES sector;
- only a third of all university students enrolled in STEM fields are women;
- women account for less than 10% of the students enrolled in STEM institutions directly related to the renewable energy sector".

The EBRD's Renewable Energy Sector Support and Gender Equality Programme is currently being implemented in Kazakhstan.

The renewable energy sector in Kazakhstan will benefit directly from the promotion of gender equality, which can help increase the productivity and competitiveness of renewable energy companies and address looming skills issues in the industry.



Thank you for your attention!

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GENDER EQUALITY ACTION PLAN

Expert Evgenia Kozyreva

Modern heating sector - international trends and challenges for the Republic of Kazakhstan. Webinar Course in connection with the preparation of the “Law on Heating”

Mainstreaming gender equality means introducing the **principle of equal opportunities** and **fair** and effective **participation** of women and men in the energy sector as an integral part of **sustainable development policies**



The basic principles of gender policy are established in the Constitution of the Republic of Kazakhstan. In 2009, the country adopted gender-specific laws "On State Guarantees of Equal Rights and Equal Opportunities for Men and Women" and the "Law on Prevention of Domestic Violence". Kazakhstan has signed the Beijing Platform for Action (1995), ratified the Convention on the Elimination of All Forms of Discrimination against Women (CEDAW) (1998) and signed the CEDAW Optional Protocol (2001).

A gender equality strategy has been implemented, and in 2016 the Concept of Family and Gender Policy of Kazakhstan until 2030 was approved.

The average gender pay gap ranges from 29% in the financial and banking sector to 45% in agriculture.

The unemployment rate for women is 5.4%, 1.1 percentage points higher than for men. At the same time, given the age groups, women aged 29-34 have more difficulty in finding work.

The choice of occupation is adopted by many women in favour of a more flexible schedule in terms of balancing work and family obligations. Gender stereotypes also influence professional self-determination and career development.

The most important factor is **gender segregation in vocational education**, which lays the foundation for sectoral differentiation in employment.

In addition to sectoral differentiation, the labour market is characterised by occupational segregation.

This means that women are **underrepresented in senior management positions** in most sectors of the economy..

As of 2017, the share of women in executive positions in the Ministry of Energy is 42%, in the oil and gas sector, it is 18%, and in the nuclear sector, 22%.

In the electricity sector, the proportion of women is over 27%.

There is also potential for growth in the proportion of women in sectors of the economy.

Number of women and men in several administrative and generation enterprises

Organisation	Total number	Women	Men	Women leaders
	4712	3452 (27%)	1260	27
KOREM Kazakhstan Electricity and Power Market Operator	32	18 (44%)	14	0
Ministry of Energy of the Republic of Kazakhstan	450	212 (53%)	238	6
Financial Settlement Center of Renewable Energy LLP	19	11 (42%)	8	1

KEY GENDER ISSUES IN THE ENERGY SECTOR

<p>Access to energy</p> <p>Household energy and rural electrification</p>	<p>Lack of time due to fuel collection and cooking; gender-based violence related to fuel collection; health impacts as women and children are disproportionately affected by the negative impacts of indoor air pollution; and lack of access to information and financing for energy services or technology</p>
<p>Infrastructure electricity and heating infrastructure heat supply</p> <p>Generation, transmission and distribution</p>	<p>Deviations, unequal land tenure or resettlement times; unfair access to new jobs in areas such as energy, engineering, tourism or services; unfair distribution of benefits due to lack of land titles or state identification; gender-based violence related to migration, construction of new roads and traffic patterns; exposure (mostly affecting men) to hazardous work on energy infrastructure such as electrical wiring and chemical handling.</p>

<p>Clean energy</p> <p>Renewable energy and energy efficiency</p>	<p>Women and female-headed households have less information about new technologies that can create employment and training opportunities; lack of access to finance and collateral to acquire such technologies or services; lack of voice in household decisions about energy options and energy use that can influence behaviour change or implementation of improved energy services.</p>
<p>Energy policy</p> <p>Subsidies, tariffs and reforms</p>	<p>Female-headed households are often less prosperous and may suffer more from rapid tariff increases than male-headed households; men often have power over family budgets and decision-making; men may suffer more than women because of direct job losses in heavy industry; women may not be included in policy advice and decision-making in line with social norms.</p>

GENDER ANALYSIS CARRIED OUT AS PART OF THE INTEGRATED TECHNICAL ASSESSMENT REPORT

The following detailed findings can be highlighted:

- Heat source preferences and the importance of quality and reliability.

At first glance, it may seem that district heating provides equal service to the entire population, but **women and men have different needs** and priorities in how services should be designed and organised, especially when such needs are due to differences in their economic activities and care responsibilities.

The **quality of** district heating **services affects women more than men**, as women spend more time at home.

It is also very important to regulate the heat supply, to control the heating in the house by means of a thermostat.

- **Availability:**

According to the 2020 survey, up to 7 tonnes of coal are purchased in the heating season with coal, which represents up to 16% of the family income in terms of cost.

With gas heating it is 15% - 17% of the family income. With district heating, depending on the family income, the costs range from 10% to 34% of the family income, but with supplementary electric equipment with small children - up to 45% of the monthly income in the heating season.

In case of faults in the heating system, in all cases respondents prefer to call a specialist.

The call of a heating engineer is usually paid, from 3000 tenge (7 USD) to 7000 tenge (16 USD) per call, with additional charges for spare parts and equipment.

- Stakeholder engagement and communication.

Women are more likely to interact with neighbours and relatives than men and are more familiar with local problems. For safety reasons, women prefer to interact with female staff rather than male staff when taking meter readings and calculating payments.

Payment receipts are the main channels of communication for energy companies to interact with consumers.

Women are usually responsible for managing the family budget and completing the payment documents.

- **Working conditions.**

Article 24 of the Constitution of the Republic of Kazakhstan states that everyone has the right to work in conditions that meet safety and hygiene requirements, to remuneration for work without discrimination, and to social protection against unemployment.

Analysis of the information material on the websites of Kazakhstan's energy companies has shown that almost all companies have adopted a code of conduct, which includes principles of ethical behaviour, equal working and employment conditions, prohibition of discrimination and harassment (including discrimination on religious, racial, ethnic, gender, age and other grounds).

There is no specific information on flexible working hours or maternity/paternity leave.

While maternity and parental leave are compulsory for all employers, flexible working hours and parental leave are negotiated with the administration. The prohibition of discrimination and harassment in the Code of Conduct does not explicitly limit sexual harassment in the workplace.

- **Institutional capacity**

Some companies run training programmes with a focus on young workers. There are no specific programmes for women to access career-long training in a municipal energy company.

- **Representation**

Between 2016 and 2019, women represented on average around 25% of the total workforce in the energy sector, but there has been no significant positive change in the last three years. Overall, 64% of women in the sector have a university degree, compared to 48% of men.

These data suggest that the energy sector in Kazakhstan is an attractive employment option for highly qualified women and that the **under-representation of women in management positions cannot be explained by a lack of qualified women.**

PRIORITY ACTIONS IN THE HEATING SECTOR

**IN THE ENERGY SECTOR IN KAZAKHSTAN, THERE IS CURRENTLY
AN INADEQUATE GENDER BALANCE**

**IN BOTH THE HEAT SUPPLY COMPANIES
AND THE ORGANISATIONS MANAGING THE HEAT SECTOR.**

THE MAIN PROBLEMS IDENTIFIED ARE:

Working conditions.

Article 24 of the Constitution of the Republic of Kazakhstan states that everyone has the right to work in conditions that meet safety and hygiene requirements, to remuneration for work without discrimination, and to social protection against unemployment. Analysis of information material on the websites of Kazakhstan's energy companies shows that almost all companies have adopted a code of conduct, but none of them explicitly includes sexual harassment in the workplace.

Institutional capacity.

Some companies run training programmes with a focus on young workers. There are no specific programmes for women to access training throughout their careers in a public energy company.

Representativeness.

Gender equality is not respected at the decision-making level in the management of the companies themselves or in the structures that regulate the industry. **Not a single company is run by a woman**

Organisational culture

Does not recognise the challenges of gender equality. There are difficulties in balancing work and family responsibilities. At the same time, negative stereotypes and misconceptions may discourage women from pursuing careers in the energy sector or from taking up jobs that are usually considered 'men's work'.

International experience shows that **increasing women's participation is important** for meeting current and future staffing needs and **has a significant positive impact** on overall performance.

THE GENDER EQUALITY ACTION PLAN CONTAINS

Measures concerning women as employees/managers/owners/decision makers in the thermal energy sector

On the supply side: Women as employees, managers, decision makers in the heating sector.

On the demand side: Women as heat consumers : Indicators concerning women as heat consumers.

As well as **measures to address cross-cutting issues**



GENDER EQUALITY ACTION PLAN FOR THE COMING YEARS

Achieving gender equality goals requires change:

- **At the technical level** (in terms of capacity, systems and tools to achieve gender equality),
- **At the policy level** (including commitment, prioritisation and decision-making),
- **At the organisational culture level**, which develops the daily attitudes and behaviours that shape and support the environment and daily activities in the energy sector.



Thank you for your attention

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A 2MW SPP in Shaulder village, Otyrar district, Turkestan region - a good example of how the issuance of the first 'green' bonds is supporting and stimulating small and medium enterprises involved in small-scale renewable energy projects.

