Food / OQ-08

# Gas and electricity control in food plants

Knowing boiler, oven and refrigeration costs per unit of product under winter gas restrictions and tariffs.

## Energy is the invisible line in production cost.

The Ministry of Energy announced gas restrictions during winter 2025–2026. In food plants, boilers, ovens, drying and refrigeration are the main consumers. If their consumption is not allocated per unit of product, it is unclear where savings should start.

Conceptual architecture. No operating results are shown.

| | |
|---|---|
| 01 Measurement | Gas · Electricity · Steam |
| 02 Consumer | Boiler · Oven · Refrigeration |
| 03 Linking | Product · Shift · Volume |
| 04 Report | m³/t · kWh/t · Limit |

## At a glance

13.2 thousand — Food manufacturing enterprises. [1]

137.7 trillion — Food produced by large enterprises in January–July 2026, UZS. [2]

Winter — Winter 2025–2026 gas restrictions (Ministry of Energy). [3]

November 2026

01 Evidence and context

## Who it is for

| | |
|---|---|
| Plant owner | Production cost. |
| Chief power engineer | Consumption. |
| Production | Plan. |
| Finance | Tariff. |

## Facts and global practice

### National Statistics Committee

13.2 thousand food enterprises as of 01.09.2026. [1]

### National Statistics Committee

January–July 2026: UZS 137.7 trillion of food products, +8.8%. [2]

### Ministry of Energy (spot.uz)

Gas restrictions were applied to industrial consumers during winter 2025–2026. [3]

No open-source data on this indicator was found for Uzbek enterprises; it is measured during the audit.

02 Where the losses occur

## Single main meter

Only one meter for the whole plant.

## Boiler

Steam-to-gas ratio is not measured.

## Refrigeration

Compressors run at full load even at night.

## Compressed air

Leaks.

## How the loss is calculated

| | |
|---|---|
| Gas | $m^3/t$ × gas price per $m^3$ |
| Electricity | kWh/t × tariff per kWh |
| Exceeding the limit | excess volume × increased tariff per unit of volume |
| Downtime | hours lost to gas outage × margin per hour |

Illustrative calculations; establish the baseline, units and rates during the site assessment. Avoid counting the same loss twice.

03 Solution architecture

# Energy per unit of product

Meters on main consumers, m³/t and kWh/t by shift and product, and an alert when the limit is approached.

**01 Measurement**

Gas · Electricity · Steam

**02 Consumer**

Boiler · Oven · Refrigeration

**03 Linking**

Product · Shift · Volume

**04 Report**

m³/t · kWh/t · Limit

## Modules

| | | |
|---|---|---|
| Electricity and gas meters | By consumer | Engineering capability |
| Limit alert | Telegram | Engineering capability |
| Linking to products | Production records | Engineering capability |
| Energy report | Monthly | Engineering capability |

Each module has a readiness status. Third-party results are not a forecast for your site.

04 Implementation and measurement

## 01 Energy audit

Consumers.

Output: measurement plan.

## 02 Pilot

1 month.

Output: baseline.

## 03 Scale-up

Entire plant.

Output: full coverage.

## 04 Subscription

Monthly.

Output: savings trend.

## What is measured

| | | |
|---|---|---|
| Gas | $m^3/t$ | Meter |
| Electricity | kWh/t | Meter |
| Limit exceedance | Incidents | System |
| Idle running | Hours | Monitoring |

## What is needed to start

- Chief power engineer
- Electrical and gas diagrams
- Invoices for the last 12 months
- Production volume

05 Readiness checklist and next step

| | |
|---|---|
| 01 Are the main consumers metered separately? | Yes / No / Unknown |
| 02 Is m³/t known? | Yes / No / Unknown |
| 03 Is kWh/t known? | Yes / No / Unknown |
| 04 Is approaching the limit visible? | Yes / No / Unknown |
| 05 Is night-time consumption analysed? | Yes / No / Unknown |
| 06 Is boiler efficiency measured? | Yes / No / Unknown |
| 07 Are compressed air leaks checked? | Yes / No / Unknown |
| 08 Is there a plan for gas outages? | Yes / No / Unknown |
| 09 Are shifts compared? | Yes / No / Unknown |
| 10 Is there a designated responsible person? | Yes / No / Unknown |

## What we do not promise

• Exact timeline and price without an audit

• Certificate or inspection outcome

• Guarantee of export approval

• Unmeasured results

## Energy audit

We show gas and electricity consumption per unit of product.

• Map of break points

• Pilot plan

• Implementation fee and monthly subscription

Scope, price and schedule are agreed after reviewing the site and its data.

06 Sources and scope

[1] National Statistics Committee: 13.2 thousand food manufacturing enterprises as of 01.09.2026 (20.2% of industrial enterprises). stat.uz.
stat.uz
[2] National Statistics Committee: in January–July 2026, large enterprises produced UZS 137.7 trillion of food products (+8.8%). stat.uz, 2026.
stat.uz
[3] Ministry of Energy: winter 2025–2026 gas restrictions. spot.uz, 26.02.2026.
spot.uz

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