
Installation of biomass boilers in the North Kazakhstan region

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Facilities with wood chip boilers

Aquapark, Petropavlovsk



LLP "Raduga" Beskol village



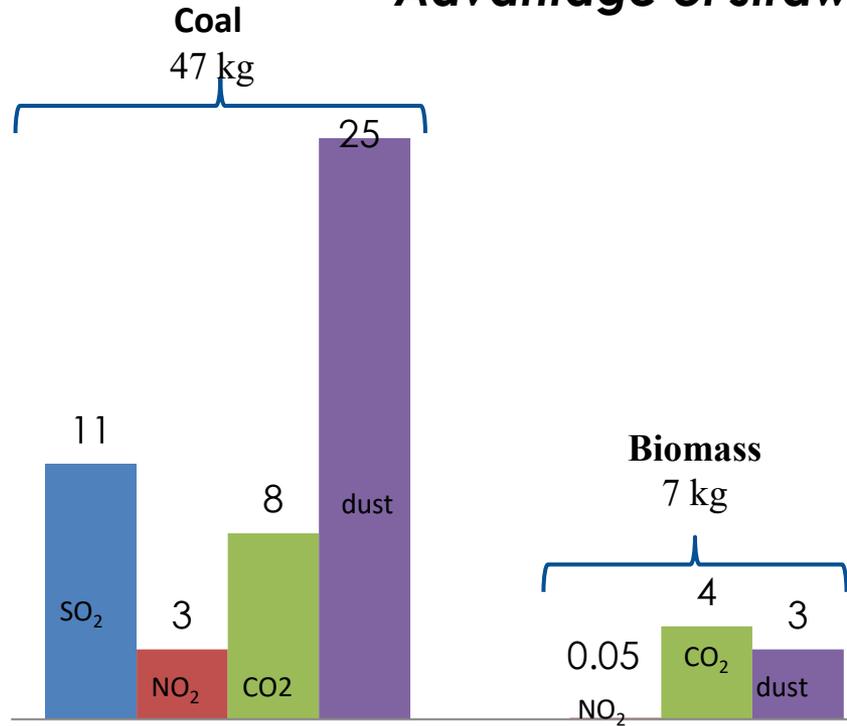
Facilities with straw boilers



**Boiler room of the central district hospital,
Bulaevo**



Advantage of straw boilers



Ecological cleanliness

- High efficiency up to 85%

- No need for expensive fuel

Emissions of harmful substances from the incineration of 1 ton

Fee for emissions of harmful substances into the environment per year is 90% lower

Total number of boilers installed in the North Kazakhstan region



Total number **118 boilers installed**

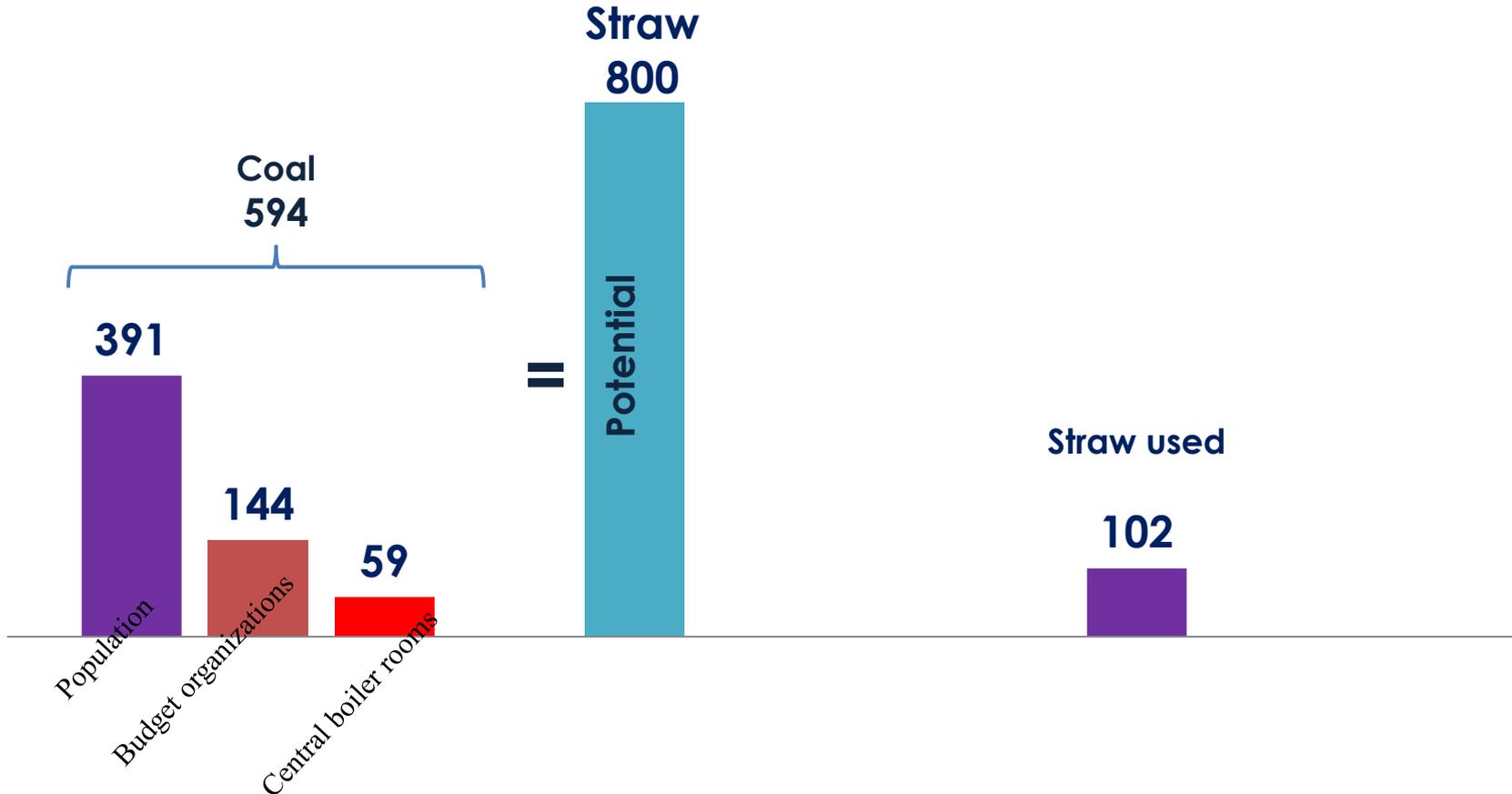
79 **budget**
organizations **transitioned to boilers**

Result: **26 000 tons of coal**
no longer needed

For the total
amount of **260 mln tenge.**

Plan for 2021 - installation
of 7 boilers

Straw use potential, in thousand tons

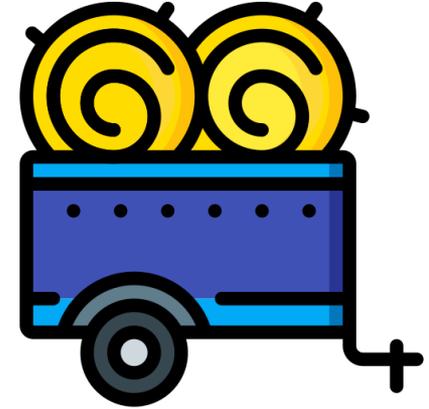


Fuel costs



**Coal –
10 000 tenge**

1 ton of coal
Is equivalent to 1,5 tons
of straw



**Straw –
3 000 – 5 000 tenge**



Biomass boilers are up to 2 times more
economical

Fuel cost savings example

Central boiler room in the Yavlenka village, Esilskiy district



Installed - 2 bioboilers;

Effect after one heating season:



Reduced coal
consumption by 2
thousand tons



Saved
30 million tenge

Legislation

Law of the Republic of Kazakhstan "On Supporting the Use of Renewable Energy Sources" (dated July 4, 2009 No. 165-IV)

Rules for the provision of targeted assistance to individual consumers (approved by the order of the Minister of Energy of the Republic of Kazakhstan dated November 28, 2014, No. 161)

1. **State support measures are needed: subsidies or compensation for the purchase of equipment to generate heat from renewable energy sources (bioboilers);**
2. **For the purchase of equipment for the production of fuel (pellets)**

Result:

- **Extensive introduction of biomass boilers;**
- **Opening of new equipment production facilities;**
- **Creation of new jobs;**
- **Reducing harmful effects on the environment**





Thank you for your
attention!