

Media Release, 11 July 2019

Moscow to Receive Swiss Support in Fight Against Waste Mountains

Four energy-from-waste plants are to be constructed in Moscow Region. A consortium consisting of the Swiss clean-tech firm Hitachi Zosen Inova and the Russian technology company ZiO-Podolsk was awarded the contract by the client, the Russian operating company Alternative Generating Company. The plants will make a substantial contribution toward reducing the number of landfill sites by treating the residual waste of around 5 million inhabitants, while at the same time delivering electricity for around 1.5 million people.

On 11 July 2019, the Russian power plant operator Alternative Generating Company-1 (AGC-1), an SPC and part of the RT-Invest Group and a consortium of the Swiss-Japanese cleantech firm Hitachi Zosen Inova (HZI) and the Russian technology company ZiO-Podolsk (a subsidiary of Atomenergomash (AEM), signed the contract to be the technology provider to build four energy-from-waste (EfW) plants in Moscow Region. HZI and AEM will deliver all of the process technology, including HZI's first-class combustion technology and state-of-the-art flue gas treatment. In addition, the consortium will be responsible for a range of overarching services and monitoring processes. This is HZI's first project in Russia.

Moscow's War on Landfill

The idea of EfW is relatively new to Moscow Region and Russia in general. A total of four EfW plants (Moscow 1-4) are to be constructed on the city's land over the next four years. Construction of the first plant has already begun around 80 km southeast of the city center. The new plants form part of the Green Tariff, a programme to promote renewable energy launched in 2017. In addition to subsidies, the new facility will be funded by waste disposal fees and the sale of electricity and bottom ash.

The EfW plants will help the city to optimise its waste management by closing and steadily reducing its many landfill sites. Each plant will process some 700,000 tonnes, this is a total 2.8 million tonnes, of residual waste per year, the waste volume from more than 5 million people, generating up to 75 MW of electricity per plant. Part of the electricity will be used to run the plants, and part will be fed into the grid supplying power to around 1.5 million people in Moscow. Andrey Shipelov, CEO of RT-Invest, comments: "The integration of EfW technology is an important milestone in the introduction of a progressive and sustainable waste management economy in Russia. As a company, we are pleased to be playing a key role in the construction and operation of Moscow Region's plants." Bruno-Frédéric Baudouin, CEO at HZI adds: "We are proud to deliver our proprietary, proven technology, and to be part of this important project in Russia."

Proven Technology Adapted to Meet Local Needs

The four plants will feature a similar design and state-of-the-art HZI technology that is already in use at several hundred sites around the world. This includes combustion with the HZI Grate, the water-steam cycle, and a multi-stage HZI flue gas treatment system that meets all European emissions standards and even falls well below the current limits.

Geographical factors pose additional challenges in terms of construction and installation. "The weather and climate here are different to Central Europe, for instance, and we have had to take account of this in the structural design," explains Urs Altenburger, the Sales Manager responsible at HZI. Some technical systems that are normally placed outdoors have been moved indoors in order to protect them from the extreme cold in winter.

Hitachi Zosen

INOVA

Promoting Local Businesses

The construction of the four EfW plants will not only bring benefits for Moscow Region in terms of waste management. The local economy will also profit, since much of the equipment and materials used will be Russian. A large number of jobs will also be created. Around 130 people will be needed to operate each completed plant, and up to 800 will be working on each site at any given time during construction.

About Hitachi Zosen Inova

Zurich-based Hitachi Zosen Inova (HZI) is a global leader in energy from waste (EfW), operating as part of the Hitachi Zosen Corporation Group. HZI acts as an engineering, procurement, and construction (EPC) contractor and project developer delivering complete turnkey plants and system solutions for thermal and biological EfW recovery. Its solutions are based on efficient and environmentally sound technology, are thoroughly tested, and can be flexibly adapted to user requirements. HZI's Service Group combines absolute commitment to research and development with extensive manufacturing and assembly capabilities, and looks after your plant throughout its entire life cycle.

The company's customers range from experienced waste management companies to up-and-coming partners in new markets worldwide. HZI's innovative and reliable waste and flue gas treatment, as well as its biogas upgrading and power-to-gas, solutions have been part of over 700 reference projects delivered since 1933. To find out more about HZI, please visit <u>www.hz-inova.com</u>.

Media Contact

Hitachi Zosen Inova AG HZI Media Office, Manuela Höllinger Hardturmstrasse 127, CH-8005 Zurich, Switzerland, T +41 44 277 14 57 com@hz-inova.com, www.hz-inova.com

About Alternative Generating Company-1

AGC-1 is a project company implementing a pilot project dealing with the construction of energygenerating facilities that use thermal treatment of municipal solid waste in Moscow Region. AGC-1 is part of the RT-Invest Group of Companies. Created in 2016, AGC-1 won the first competition in Russia for the right to build such facilities in 2017.

AGC-1's major tasks include solving the environmental problem of waste management, as well as creating a new segment in the Russian industry.

The company's functions are divided into two stages: 1) plant construction process organization, and 2) plant commissioning and operating.

Media Contact

RT-Invest Evgeniya Sokolova Head of Press Office Malaya Yakimanka, 10 Moscow, T +7 495 374 80 54 <u>esokolova@rt-invest.com</u>, <u>www.rt-invest.com</u>