

4th international trade fair for heating, air conditioning,
sanitary fittings, bath & design and renewable energy

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TBILISI

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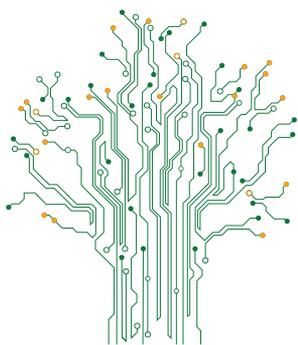
8-9 DECEMBER 2017

Tbilisi, Georgia

4th International Energy, Power and
Communications Exhibition

ELCOMM CAUCASUS 2017

www.elcommexpo.ge



ELCOMM CAUCASUS

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5-6 DECEMBER 2017

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Tbilisi, Georgia

Developed by
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Organized by
Expo Georgia
Since 1958



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2017

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Supporters:



BUILD NEW RELATIONSHIPS

- Find and meet direct buyers
- Share information about the company and industry with other exhibitors
- Develop and strengthen partnerships with local and international organizations

BUILD AND SHOWCASE COMPANY IMAGE

- Invite your partners
- Communicate brand image through stand design and communication materials
- Communicate with government representatives

WHY EXHIBIT

PROMOTE YOUR COMPANY

- Boost your retail sales
- Increase awareness of products/company/brands
- Develop relationships with corporate buyers
- Find and utilize new partnership opportunities
- Showcase latest products and innovations to the target audience

BENEFIT FROM THE MARKETING CAMPAIGN OF THE EVENT

- Extensive media support and coverage
- Social media campaign
- TV and Radio advertising
- Direct communication with target groups (invitations, e-mails and phone calls to target groups from Georgia and Caucasus)
- Print media advertising

COUNTRIES PRESENTED IN 2016

- | | | |
|-----------|------------------------|------------------|
| • GEORGIA | • UNITED ARAB EMIRATES | • INDIA |
| • TURKEY | • UKRAINE | • IRAN |
| • POLAND | • RUSSIA | • CZECH REPUBLIC |
| • SPAIN | • ARMENIA | • PORTUGAL |

AQUATHERM TBILISI 2017 EXHIBITION PROFILE

HEATING AND ENERGY TECHNOLOGY

- Biomass organic fuels
- Electricity, gas, central heating suppliers
- Heating and boiler technology (gas, oil, biomass fuels)
- Heat insulation
- Heat pumps
- Low energy housing and related technologies
- Pellets
- Renewable sources of energy
- Solar housing technology
- Solar power (systems)
- Collectors
- Photovoltaic
- Wind power

TEMPERATURE REGULATION, AIR CONDITIONING AND VENTILATION

- Cooling, chilling and freezing technology
- Heat and moisture recycling
- Housing ventilation
- Operating substances
- Room ventilation technology
- Sound proofing and transmission
- Temperature and air conditioning technology
- Ventilation technology
- Ventilators

INSTALLATION TECHNOLOGY AND ACCESSORIES

- Accessories
- Installation requirements and technology
- Piping and tubing systems
- Pumps
- Rainwater usage systems
- Technologies for water and waste water
- Water processing

THE WORLD OF RELAXATION BATHS AND SPA AMENITIES

- Bathroom, shower and toilet technology
- Bathroom and water facility ceramics
- Bathroom furniture
- Infra-red
- Jacuzzis
- Saunas
- Steam baths
- Swimming pools, related technologies
- Taps and fittings
- Tiles



VISITOR PROFILE

- System managers
- Architects
- Training / institutions / research
- Real estate developers
- Building industry and traders
- Energy providers
- Facility managers
- Cooperatives
- Building caretaker companies
- Industrial management
- Technicians in cooling, air conditioning ventilation
- Network technicians
- Planners
- Chimney sweeps technicians and wholesalers in sanitary and heating appliances
- Sanitary, heating and air conditioning plumbers and technicians
- Safety technicians,
- Technical offices and civil engineers administration bodies for public institutions.

AQUATHERM TBILISI 2016 RESULTS

- **1690** sq.m. of exhibiton space
- **34** exhibitors from **12** countries
- **1550** unique visitors
- **65,9%** of the exhibitors fully reached their goals
- **75%** of the exhibitors were satisfied with the quantity of the visitors
- **57%** of the exhibitors will participate in **2017**
- **56%** of the visitors expectations were fully met
- **67%** of the visitors were professionals from the construction sector
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- **65%** of the visitors came to find specific products or services

ABOUT THE INDUSTRY

HVAC market has a great potential of growth in Georgia



GEORGIAN MARKET DATA OVERVIEW

Georgia achieved robust economic growth between 2003-2014, averaging 6.3 percent annually, following structural reforms that stimulated capital inflows and investment. The reforms helped to improve the business environment, strengthened public finances, upgraded infrastructure facilities

and liberalized trade. Growth was also supported by increased foreign direct investments (FDI) and was driven by capital accumulation and sound use of excess capacity rather than by net job creation, with productivity gains concentrated mainly in the nontradable sectors.

- GDP per capita increased from **\$919** in **2003** to **\$3,763** in **2014**.
- GDP growth rate amounted to **4.7%** in **2014**.
- Value Added Tax (from **20%** has been reduced to **18%**)
- Income Tax (**20%**)
- The average growth rate of selling transactions during last three years was **8%** in Tbilisi.



GEORGIA'S RANKING IN THE WORLD BANK'S DOING BUSINESS SURVEY

- **15th** among **189** countries.
- **1st** In property registration.
- **3rd** In dealing with construction permits.
- **5th** In starting a business.
- **7th** In getting the credit.
- Building and Construction sector makes up 9% of the country GDP
- Out of 65 900 people permanently employed within the construction sector, 60% are located in Tbilisi
- Import of plastic pipes and fittings amounted 43,377,420.08 USD

The Georgian population is approximately 4.49 million. This figure has grown since 2006 by 2%.

About 54% of the total population lives in urban areas and the urbanization rate has been increasing since 2006.

DEVELOPMENTS IN 2016

MOST RESILIENT ECONOMY IN THE REGION IN 2016

The Georgian economy remained resilient despite the external headwinds hampering performance since end-2014. Growth remained stable at 2.7% y/y in 2016, which we view as fairly solid compared to the country's major trading partners. The construction sector grew by 8.1% in 2016 as a whole despite the slowdown in 2H16, attributed to the high base in 2015. Importantly, the two largest sectors of the economy posted growth – manufacturing (+4.8% y/y) and trade (+1.8% y/y) – reflecting the recovery in both external and domestic demand, supported by firming world

commodity prices and increased remittances in 2H16. Robust tourist arrivals drove the strong 9.9% y/y growth in the hospitality sector. Financial intermediation rose 9.3% y/y. Real estate operations was the other fastest-growing sector at 6.7% y/y despite uncertainties related to GEL depreciation. Transport (-0.7% y/y) and communications (-0.2%) were the only sectors to post a modest contraction in 2016. Growth in agriculture was flat despite various government-supported programs in the sector.

INVESTMENTS DROVE GROWTH IN 2016; RECOVERING PRIVATE DEMAND ALSO SUPPORTED GROWTH IN 2H16

Investments increased by 7.9% y/y in real terms in 2016 as FDI related to strategic projects and residential construction increased private investments by 10.5% y/y. Government investments fell 4.2% y/y in real terms, as infrastructure spending slowed significantly in 4Q16. Private consumption recovered in 2H16, bringing the 2016 growth figure to +1.2% y/y. This was supported by growth in

remittances since June 2016 and an 18.5% y/y expansion (excluding FX effect) in the retail credit supply. Strong growth in services exports largely compensated drop in goods exports. At the same time, imports recovered in the 4Q. As a result, net exports contribution to GDP was negative 0.9ppts compared to negative 3.7ppts in 2015.



COMPREHENSIVE REFORMS TO BOOST GROWTH AND ENHANCE ECONOMY'S RESILIENCE TO EXTERNAL HEADWINDS

To revive growth in the face of regional headwinds, the government set out a four-pillar reform program in February 2016, which is currently being implemented. The program focuses on fostering structural changes in the Georgian economy to boost growth:

1. Economic reform is focused on further supporting the private sector in driving growth. In this regard, reform measures are directed to further improve Georgia's business environment and introduce significant tax incentives. Measures to further liberalize tax and customs procedures, amongst others, include the introduction of the Estonian model, where corporate income tax is only levied on distributed profits; undistributed profits, reinvested or retained, are exempt, starting

2. Education reform is proposed to ensure the development of human capital and its effective involvement in the country's development process. The government plans to introduce a dual system in professional education, which implies a work-based learning approach through public-private

3. Infrastructure investments are expected to improve the relationships between towns and villages, to promote high-quality sustainable tourism development, and to transform Georgia into a transport and logistics hub connecting Europe and Asia. The government intends to develop a special plan for the entire country as well as for municipalities, villages and coastal regions, including master plans for established tourist destinations and for places of untapped tourism potential. Under this infrastructure development component, the government plans to construct more than 800km of road infrastructure,

4. Governance reform envisages improvement of the quality of public services and the efficiency of public institutions. To achieve these goals, the government plans to establish a "Business House", where businesses will receive services based on a single-window principle, similar to how ordinary citizens currently receive services at public service

January 1, 2017 (changes to tax code were adopted by parliament in May 2016). This measure is expected to generate additional private sector investment and to create new jobs in the medium term. According to USAID's assessment, corporate income tax reform will add 1.5% to growth within 18 months. The government also plans to continue and expand programs to support entrepreneurship, innovation, and business start-ups.

partnerships. Higher education will be based on the needs and demands of the economy; priority disciplines will be determined based on labor market analysis, and efforts will be directed to enhance the labor force's effectiveness and readiness for labor market demands.

with construction costs estimated at US\$ 3.5bn, including completing construction of the east-west highway by 2020. Other infrastructure priorities include projects to improve the country's water supply, sanitation, and solid waste management. The government also plans to provide internet infrastructure for an additional 800,000 persons. With this measure, more than 90% of Georgia's population will have access to the internet. Infrastructure schemes are expected to enhance Georgia's importance in the region and its potential as transit and logistics hub.

halls. The single-window principle is expected to save businesses' time and resources in interacting with governmental agencies. The government also plans to enhance existing online public services as well as introduce new distant services and optimize fees.



ELCOMM CAUCASUS 2017 – INTERNATIONAL PLATFORM FOR THE INDUSTRY

4th International Energy, Power and Communications Exhibition combines the entire sector into a single event, presenting products and services of energy and power, electrical engineering, distribution and control, telecommunications and information technology.

Georgia's energy sector is one of the country's most attractive investment opportunities, new more liberal laws made investments and projects in the energy sector easier and in 2013 the government started a new stage of development that aims to

develop a fully competitive market structure and synchronize regulations with EU standards, on top of that due to increased electricity consumption over the past 5 years additional resources became required to satisfy the local demand and Georgia also began reaching towards its goal to become a regional hub for electricity transit amongst its neighbors. The industry is growing rapidly and it's poised to grow even further alongside the country's economic growth.

HYDROPOWER

Hydropower dominates electricity generation in Georgia 7 new hydropower stations were built with total turnover per year of 696.4KWH, it's planned to build 82 new hydropower stations. 22 hydro plants

are currently under construction and 72 small and medium hydro plants are already signed for construction, the ministry of energy has additional 80 HPP projects available for investment.

LOCAL DISTRIBUTION

Current electricity production represents only 40% of Georgia's estimated annual hydropower output potential, which gives a huge opportunity for growth and developments, while the electricity prices are rising and the consumption is growing

faster than the production additional resources are needed and fast, throughout the last couple of years the government made the increase of production its priority and numerous projects are planned for the near future.

RENEWABLE ENERGY

Since the generation capacities are still falling short of growing consumption and the country has a deficit during the winter, on top of the importing electricity new opportunities for renewable energy have been addressed to fill in the shortage and

satisfy the demand with the local production during the deficit. In the winter on top of the import, Georgia depends of Thermal Power Plants, on top of that for the first time in 2015 the government began building of a new Wind Power Plants.

EXPORT

Georgia's output at HPPs is seasonal it peaks in the summer and falls in the winter, during the summer time Georgia exports the electricity to turkey, which experiences deficit during the summer

time. With the new projects in development and increased output in electricity country's exporting capabilities will increase and new markets may become available for the industry.

TRANSIT

Georgia plans to become a regional hub for electricity transit, the country has the ability to transmit Russian and Azeri electricity to Turkey and Russian electricity to Iran through Armenia. Also Georgia is a transit corridor for Caspian oil to European markets.

back-to-back links and the new Meskheti line connecting Georgia and Turkey were completed in 2013. Georgia is the first country to install such links, which guarantees a stable exchange of electricity and strengthens Georgia's potential to be a hub to transit electricity from Russia and Azerbaijan to Turkey.

Under the framework of the Black Sea Transmission Network (BSTN) two 350MW HVDC

OTHER REGIONAL MARKETS

Georgia as a center of Caucasian region has the best geo-political location for becoming an international hub for the industry in the region with the total population of more than 20 million people, centered between Russia, Turkey, Azerbaijan and

Armenia with the Iranian border very close through Armenia, Georgia becomes the only country which can effectively provide a transit corridor for the energy sector in Caucasus.

SINGLE EVENT FOR THE ENTIRE INDUSTRY

MAIN TOPICS OF THE EXHIBITION

- Power engineering industry
 - Equipment for electric power lines
 - Pipe lines
 - Technological processes automated control systems
 - Software
 - Energy saving technology and equipment
 - Energy audit, energy management
 - Power facilities safety and environmental safety
 - R&D in power engineering
 - Communications
-
- **Power Engineering Industry**
 - Turbines and auxiliary equipment
 - Boilers, boiler and auxiliary equipment
 - Diesels and diesel generators
 - Heat exchangers
 - Compressors
 - Industrial ventilation
 - Electrical equipment
 - **Equipment for Electric Power Lines**
 - Electric motors, electric power generators, electric actuators
 - Converters, transformers, transformer substations
 - Power electronics
 - Low-voltage equipment
 - High-voltage equipment
 - Wiring products
 - Switchboards, switch board room equipment
 - Cables, wires and fittings
 - Protection equipment for electric installations
 - Electrical insulating products
 - Light engineering
 - Electro, gas and heat supply systems
 - **Pipe Lines**
 - Joining and valving hardware, regulators, reducing gears
 - Gas burner units
 - Modern materials and products
 - Equipment for public utilities sector
 - **Technological Processes Automated Control Systems**
 - **Instrumentation and Control Systems**
 - **Software**
 - **Energy Saving Technology and Equipment**
 - **Energy Audit and Energy Management**
 - **Power Facilities Safety and Environmental Safety**
 - **R&D in Power Engineering**

ELCOMM CAUCASUS 2016 RESULTS

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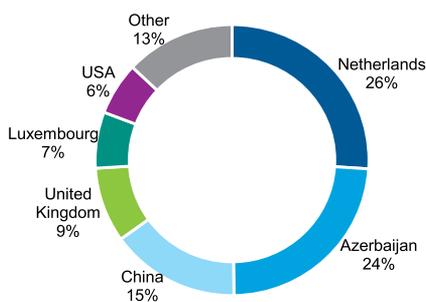
GEORGIA'S ENERGY AND COMMUNICATIONS SECTORS – SUSTAINABLE GROWTH

- New project of the Ministry of Energy will provide gas to every family in the country, during the past 2 years 88 000 households were added to the list of subscribers
- 8 villages in the high mountain regions of Georgia were provided with electricity, it is planned to provide 20 new villages during the next years
- Value added by the energy sector in the total FDI is 22% which amounts to 347328 mln USD
- For the safety and improvement in the energy sector replacement of all the power lines and building of new high voltage substations and pipelines are now in progress

Georgia's energy sector as one of the most rapidly developed and successful industries in the country with the potential of further growth and regional as well as international opportunities is the best market for investments and ExpoGeorgia is ready

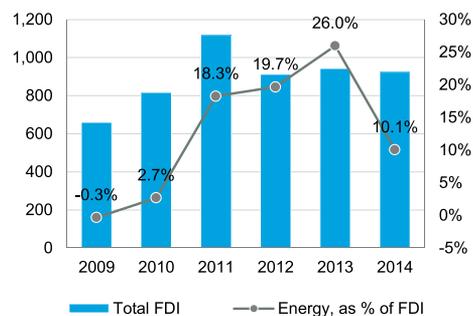
to assist you in better acquainting yourself with this industry in Georgia and Caucasus region as well as new opportunities for fruitful business activity and entering the market.

Foreign Direct Investment by source country, 2014



Source: Geostat

Energy sector's share of FDI, US\$ mn



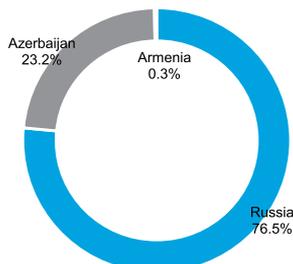
Source: Geostat

HPPs completed in 2009-2015

Name	Completion date	Installed capacity, MW	Potential annual output, GWh	Total cost, US\$, mn	Construction cost per MW, US\$, mn
Paravani HPP	2015	86.5	410	157	1.8
Larsi HPP	2014	19.0	100	20	1.1
Bakvi 3 HPP	2013	9.8	38	13.5	1.4
Akhmeta HPP	2014	9.1	50	9.8	1.1
Aragvi HPP	2014	8.5	50	13.0	1.5
Kazbegi HPP	2014	6.0	30	3	0.5
Shilda HPP	2014	5.0	30	5.5	1.1
Nabeghlavi HPP	2014	1.9	12	2.8	1.5
Total		146	720	225	1.5

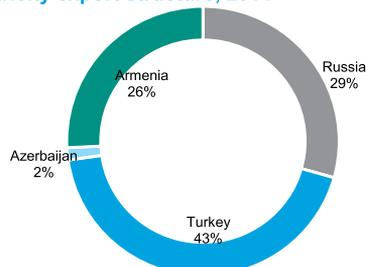
Source: Ministry of Energy, ESCO

Electricity import structure, 2014



Source: ESCO

Electricity export structure, 2014



Source: ESCO

THE ENERGY SECTOR IS A KEY DRIVER OF THE GEORGIAN ECONOMY

Over the last 5 years the sector was the 2nd largest contributor to total foreign direct investment (FDI) with US\$ 750mn (15% of total FDI). Georgia's potential in the energy sphere is rooted in two strengths: as an energy transit corridor for Caspian oil to European markets and in the country's ample hydropower resources.

Georgia's aim is to become a regional electricity transit hub thanks to its natural competitive

advantage due to the country's location. Georgian State Electrosystem (GSE) plans to invest up to US\$ 1bn in projects to increase the country's cross-border transmission capacity and strengthen internal network stability. Georgia can export its own electricity, but it can also act as a transit corridor redirecting Russian and Azeri electricity to Turkey, as well as Russian electricity to Iran via Armenia.

Over the last decade Georgia's hydropower sector has attracted numerous strategic investors. Currently, 22 hydropower plants with planned total capacity of 1,500MW (around 50% of the existing total installed capacity) and investment value of US\$ 2.6bn are either under construction or in the licensing stage. Over the last 5 years, 8 small and medium HPPs with total installed capacity of 146MW have been built. Both local and international investors participated in these projects, including:

- Anadolu Group (Turkey), which completed the 87MW capacity. Paravani HPP in 2014 at a total project cost of US\$ 157mn.
- Peri Ltd. (Georgia) together with The Robinson Group (USA) and the Georgian Energy Development Fund are overseeing the 108MW Dariali HPP. Production is expected to start in early 2016. The project is expected to cost US\$ 123mn, with debt financing provided by the EBRD.
- Clean Energy Invest (Norway), Tata Power (India), and International Finance Corporation (IFC) are implementing the Adjara Cascade project with total projected installed capacity of up to 400MW. The first phase of the project, the 182MW Shuakhevi HPP, is already under construction and expected to be operational by 2017. The total project cost is US\$ 700mn. Georgia's state-owned Partnership Fund has finalized the construction of the 230MW gas-fired combined-cycle TPP, which is expected to be operational by the end of 2015. The total project cost was around US\$ 230mn.
- Georgian Co-Investment Fund (the largest private equity fund in Georgia) is building the 53MW Mtkvari HPP. The project is expected to be operational by 2018, at a total projected cost of up to US\$ 113mn.
- Calik Enerji (owned by Calik Group, one of Turkey's largest investment groups) is developing the
- Alpana and Sademli HPPs with combined installed capacity of 226MW. The total cost of both HPPs is around US\$ 460mn. The projects are currently undergoing feasibility assessments and construction is expected to start in 3Q17.

Georgia's energy sector is one of the country's most attractive investment opportunities. Hydropower is the cheapest source of renewable power for Georgia and therefore the sector will continue to be attractive for investors over the mid-term. The investment story is rooted in Georgia's massive untapped hydropower potential: current electricity production represents just 40% of Georgia's estimated annual hydropower output potential of 15 TWh. In addition to 22 hydro plants currently under construction or in the licensing stage and MOUs signed for the construction of 72 small and medium hydro plants, the Ministry of Energy has an additional 80 HPP projects available for investment. Generation capacities are falling short of growing consumption. Georgia's electricity generation has not kept up with growing consumption since 2012. Over the last 5 years output increased 23% to 10.4TWh as of 2014, while consumption grew 27% to 10.2TWh, largely in-line with GDP growth. We expect consumption growth will continue to track GDP trends. Wholesale electricity prices are on the rise. In 1H 2015 the average electricity price surged 55% y/y, driven by increasing consumption on the back of insufficient growth in generation capacity, with the shortfall being bridged by more expensive sources like imports, thermal power, or

newly built hydropower plants. Newly built HPPs are still by far the cheapest source of electricity. Georgia's neighbor and key trading partner Turkey is an attractive market for exports due to growing consumption, geographical proximity, and an inverse consumption pattern (shortages in the summer when Georgia has a surplus). A new 700MW capacity transmission line now connects the two countries, which will allow for rapid growth in exports. Georgia is on its way to establishing a fully competitive electricity market, which will enable producers to sell electricity at competitive prices. The Georgian government aims to develop a true competitive market and harmonize regulation with Turkish and EU standards. The reforms are aimed at establishing a trading mechanism to help create a competitive market with transparent pricing and a stable environment. Georgia's goal is to become a regional hub for electricity transit and increase cross-border transmission capacity with its neighbours. In addition to exporting its own electricity to Turkey, Georgia can also transmit Russian and Azeri electricity to Turkey and Russian electricity to Iran through Armenia. Georgian State Electrosystem (GSE) plans to increase transmission capacity to Armenia, Russia, and Turkey by 4.5x, 1.8x and 2.1x, respectively.



ABOUT THE ORGANIZER

ExpoGeorgia is the leading exhibition and convention center in Caucasus region. As a multifunctional business center, we combine trade fairs with congress and conferences.

Experienced, attentive event coordinators work to develop new concepts and programs to ensure that ExpoGeorgia as "a relationship broker" continues to have a strong voice in the international economic forums of tomorrow.

History of the Exhibition Center starts in 1958. At that time, State has built temporary exhibition pavilions and organized industrial exhibition to celebrate 1500 years' anniversary of Tbilisi. Large scale construction works began in 1961 and as a result 11 pavilions, green house, pool sand park were placed in the city center. During

Soviet Period exhibition center was a place for permanent exhibition of industrial and agricultural achievements of Soviet Republic, once a year the space was devoted to international exhibitions.

In 1994-1998 organization was privatized and transformed into Joint Stock Company.

Infrastructure was modernized. ExpoGeorgia has been assigned a very important role – guiding foreign capital inflow in Georgia and opening international markets for new Georgian businesses.

ExpoGeorgia events became an excellent forum for decision makers to evaluate new products, make new contacts, enhance supplier relationships and conduct purchasing activities.

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Facebook: [www.expogeorgia.ge/ExpoGeorgia](https://www.facebook.com/expogeorgia.ge/ExpoGeorgia)

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