第六届“创蓝奖”国际清洁空气技术评选

6th Bluetech Award International Clean Air Technology Competition

Looking for International Players to Battle Air Pollution in China!

The *Bluetech Award* is launched by the Bluetech Clean Air Alliance (BCAA) in 2015 as the first award to promote leading air pollution prevention and control technologies around the world to solve the most pressing air quality challenges in China.

After five years, the *Bluetech Award* has received more than 300 applications from 22 countries all over the world. Among all the participants, 30 winners, 14 future stars and 86 finalists have been selected and given the opportunities to widen their China network, demonstrate the excellence of their technologies, and connect to China's vast market through a great variety of matchmaking activities.

This year, we are once again calling for applications for the 6th *Bluetech Award* and seeking the best available clean air technologies to help tackle China' air quality problem.

Apply today and get your name known as a leader of the global clean air campaign!

To Apply

Please submit a completed application for each technology and send with related materials via email by **November 15th, 2020**. Early applications may receive additional exposure opportunities.

Please contact ***Bluetech Clean Air Alliance***

Shane He, email: bluetech@iccs.org.cn Phone: (86) 13700095922

Award Benefits

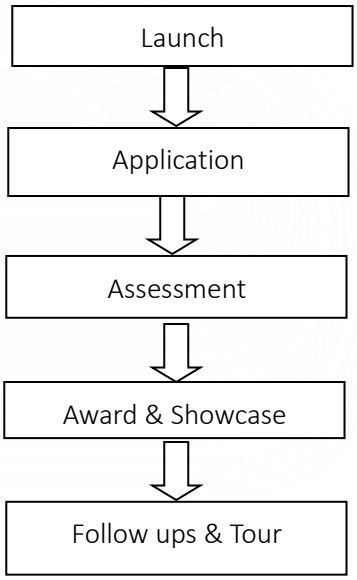
The *Bluetech Award* winners will be recognized as the best solutions to tackle air pollution emissions in the world. Winners will be able to:

- Demonstrate technology at Award Ceremony in the International Clean Air Conference, the event for investors, project owners, governmental leaders and corporates to exchange views and ideas on air quality solutions for China.
- Tour key pilot cities and take part in customized, march-making activities;
- Opportunity to participate in technology demonstration project, IP strategy planning and financing/investment service etc. systematic support via Bluetech acceleration platform for your development in China;
- Included in “Bluetech Clean Air Technology Manual” & Technology Demo. Database; Receive the Award certificate and coverage by major Chinese and global media partners.

Categories

- Diesel engine emission reduction technologies & clean energy substitutes.
- Coal combustion emission control & clean energy substitutes (non-power sector).
- VOCs substitution and pollution prevention.
- Indoor air pollution control.
- Advanced pollution source and air quality monitoring.
- Innovative waste incineration emission control and its substitution technology

Procedure



Eligibility

Any individual or organization that is developing or implementing solutions that lead to cleaner air is eligible to apply.

Bluetech Future Unicorn Competition

The Unicorn is defined as a start-up company that values 1 billion or more. The *Bluetech Future Unicorn* competition aims to identify, foster, and accelerate the future giant of clean technology start-ups. This competition welcomes all the companies and individual competitors with ideas or inventions in clean air technology. We are looking for clean technologies with the greatest breakthrough potential to fight the air pollution in China and all over the world that falls into any of the following categories:

- End of pipe air pollution control technologies;
- Clean transport and clean energy vehicles;
- Clean energy and renewable energy;
- Energy storage and management;
- Monitoring and data management technologies;
- Indoor air purification and protection;
- And other technologies with strong potential in restoring blue skies.

Assessment Criteria

- Level of innovations;
- Business feasibility;
- Funder and team;
- Potential influence to restore blue skies and shape a cleaner future.

Bluetech Award Categories

Category 1: Diesel engine emission reduction technologies & clean energy substitutes

The number of motor vehicle ownership in China has reached 295 million by 2016, producing total pollutants of 44.7 million tons per year. In China's megacities like Beijing, Shanghai, Guangdong and Shenzhen, the increase rate for car ownership, the average mileage for passenger vehicles, and the car density in urban areas remain at high level, and the contribution of vehicle emissions to local air pollution keeps rising. Diesel vehicles are believed as the most significant problem, as they are responsible for up to 70% of all vehicle NOx emissions, and up to 90% of all vehicle particulate matter emissions. Furthermore, emissions from diesel powered non-road vehicles, such as ships, port machinery, agricultural machinery and general engineering machinery, are also believed to cause significant air pollution (especially NOx and particulate matters emissions) due to lack of control. Cities like Shanghai and Shenzhen have already begun to employ new energy (e.g. LNG) and emission control technologies (e.g. DPF) in their policy making to control non-road vehicle emissions.

We are looking for the following types of diesel engine emission control technologies:

- Fuel treatment technologies, such as diesel fuel treatment, clean energy (e.g. LNG) etc.
- Engine combustion optimization technologies, such as Exhaust Gas Recirculation, fuel injection optimization techniques, etc.
- Engine emission control technology, such as Diesel Oxidant Catalyst (DOC), Particulate Oxidation Catalyst (POC), Selective Catalytic Reaction, Diesel Particulate Filter (DPF), etc.

Category 2: Coal combustion emission control & clean energy substitutes (non-power sector)

Coal is the major energy source in China. It contributes approx. 60% of the primary energy consumption and has become one of the main pollution sources. Due to governmental preferential policy, emission control for coal-fired power plants has been conducted in many cities. However, emissions from disaggregated coal in non-power sectors should not be underestimated. The $PM_{2.5}$ source apportionment analysis for Jing-Jin-Ji region shows that disaggregated coal emission has contributed about 25% of local $PM_{2.5}$ emissions. According to the government work report in 2017, China is addressing pollution caused by disaggregated coal combustion with measures including advancing clean winter heating in the northern region and replacing coal with electricity and natural gas in more than 3 million households, and eliminating coal fire stoves in the urban built-up areas of cities at or above the prefecture level. The Plan for Clean Winter Heating in the Northern Region (2017-2021) mandates the clean heating accounting for 100% of the total winter heating fuels in the 2+26 key controlled cities and 70% in the whole northern region.

We are looking for the following type of Emission Control Technology for Non-power Sector Coal Combustion:

- Alternative clean energy & renewable energy technologies;
- Advanced heating technology, such as waste heat recovery technology, etc.;
- Other related technology.

Category 3: VOCs substitution and pollution prevention

Volatile organic compounds (VOCs) are the key precursors for ozone and $PM_{2.5}$, and the main contributors for the current complex regional air pollution in China. VOCs and the relating secondary pollutants have adverse impact on human health, and some are also carcinogenic or mutagenic. As the China launches the official “war on pollution,” the 13th Five Year Plan has listed VOCs as an important contaminant, and quantified VOCs emission reduction targets. In July 2016, the Ministry of Finance and the Ministry of Industry and Information Technology jointly issued an Action Plan for Reduction of VOCs in Key Industries, which ruled that by 2018 the emissions of VOCs in 11 Key Industry sectors must decrease by more than 3.3 million tons from 2015’s cap.

We are looking for the following types of VOCs monitoring and control technologies:

- Low VOCs substitutes, such as low VOCs paint, low VOCs solvents, etc.
- Leak Detection and Repair (LDAR) related technologies, such as leak detection technology, leak repair technology, etc.
- End of pipe VOCs control technologies, such as VOCs recycling technology, VOCs destruct system, etc.
- Other technologies that address VOCs pollution.

Category 4: Indoor air pollution control

People spend, on average, 70% of their time in indoor environment and therefore are potentially more exposed to indoor air pollutants. In addition to outdoor pollution infiltration, there are also many pollution sources in indoor environments, which causes high indoor air pollution that are often more severe than the outdoor air. As people are becoming more aware of air quality and health, concerns on the indoor air quality have also been raised.

We are looking for the following types of indoor air purification technologies:

- Central HVAC system purification technologies.
- Decentralized purification technologies (indoor air purifiers, vehicle air purifiers, etc).

Category 5: Advanced pollution source and air quality monitoring

In order to effectively conduct air pollution prevention work, it is essential to know the specific air pollution characteristics of the area and its major pollution sources. Advanced monitoring technologies are able to provide real time, accurate and comprehensive air quality data, which can support air quality management, policymaking and strategic planning. Hence, the Bluetech Award has selected the advanced pollution source and air quality monitoring as one of the technology categories.

We are looking for the following types of advanced monitoring technologies.

- Ambient and indoor air quality monitoring technologies;
- Pollution source monitorin, such as online monitoring devices, portable devices.
- Other advanced air pollution monitoring technologies, Dust/TSP monitoring etc.

Category 6: Innovative waste incineration emission control and its substitution technology

The world produces 490 million ton waste every year, in which China produces 150 million ton of them. There are approximately 7 billion ton of waste have been accumulated around Chinese cities. Along with the urbanization, waste use to be a big burden that has restrained city development. Thanks to the technology development, the potential of waste has been explored and now it has been considered as the “urban gold mine” or “rich resources in wrong place”. Waste treatment had a late start but grow fast in China. The waste incineration, as one of the most effective garbage disposal approach, has been advocated. According to the

13th FYP, it is requested to build waste incineration power generation capacity by 7.5 million kW. Nevertheless, waste incineration could jeopardize the environment without proper management and control measures. This year, Bluetech Award has selected this category to look for world leading technologies in helping China better manage the waste treatment works.

We are looking for the following types of advanced monitoring technologies.

- Waste incineration related technology such as advance incinerator;
- Acid gas and heavy metal control technology, such as advanced bag filter system;
- Dioxin control technology, such as incineration temperature control system;
- Related waste emission control technology, such as leachate control technology;
- Other waste incineration substitution technology, such as anaerobic fermentation, garbage compost etc.