



020-31706106
总公司/Head Office
产品经理/Product Manager
周凌杰 15220950794
唐鹏程 17602074845

分公司/Branch Offices
几何智慧（常州）光伏电站运维管理有限公司
石宇 18811403552

几何智慧城市科技（佛山）有限公司
向才峰 13827764736

几何智慧城市科技（武汉）有限公司
罗志勇 13995593580

几何智慧城市科技（东莞）有限公司
罗雄 13609666086

内蒙古几何智慧城市科技有限公司
李志菲 18647234068

青海几何智慧城市科技有限公司
曹善农 13780977688

www.gdgcst.com www.gdgcst.net

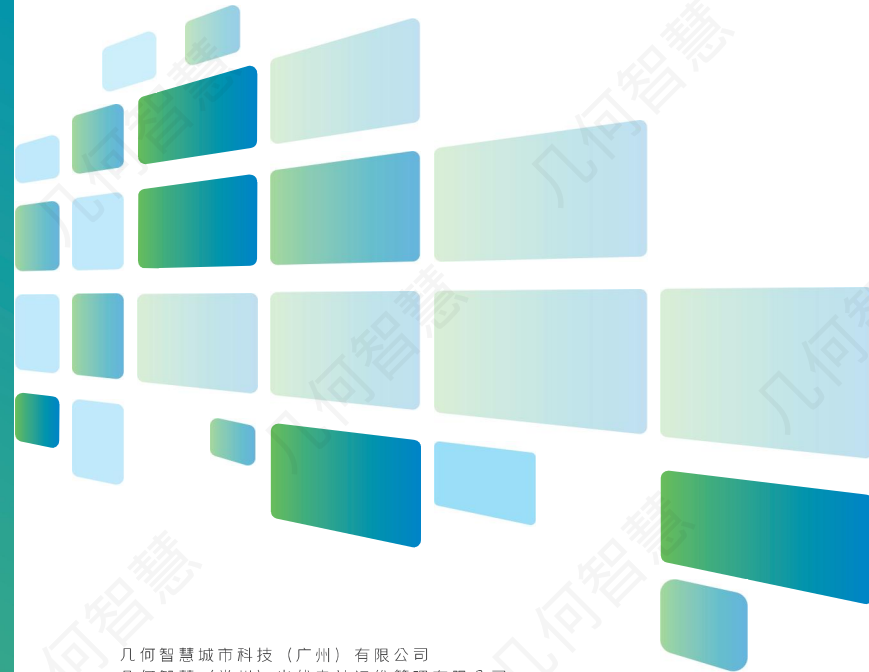
地址:广州市增城区新塘镇西宁西路648号A4栋
Add: Building A4, No. 648 Xiningxi Road, Xintang Town, Zengcheng District, Guangzhou

版权所有
几何智慧城市科技（广州）有限公司
任何公司和个人在未得到本公司书面许可时，不得复制、节录或删除本产品目录之任何内容
本公司有权保留本产品资料之一切解释、修改权，如有变更恕不另行通知



光伏电站智慧自洁运维管理平台

Intelligent Self-cleaning and Operation and Maintenance Management Platform for Photovoltaic Power Station



几何智慧城市科技（广州）有限公司
几何智慧（常州）光伏电站运维管理有限公司

目录

Contents

公司介绍
Company Profile

智慧运维管理软件
Intelligent O&M Management Software

应用案例
Applied Cases

公司荣誉
Our Honors

平台及产品介绍
Our Platform & Products

自洁运维管理智能装备
Self-cleaning and O&M Management Installations

纳米高效光伏板自洁净剂
Photovoltaic Panel Self-cleaning Products

我们的服务
Our Services

公司简介

COMPANY PROFILE

几何智慧城市科技(广州)有限公司是一家集产、学、研结合的国家级高新技术企业，拥有独立的工程技术中心。几何智慧专注于纳米材料的产业化研发，并成功将其应用于光伏领域。公司自主研发的光伏应用产品“纳米高效光伏板自洁净剂”，已通过国家产品技术鉴定、科技成果备案、广东省高新名优产品认证，并获得欧盟CE认证。公司独立研发的“智慧喷淋及管理系统”能提升光伏发电效率5%以上，可广泛应用于分布式、集中式光伏电站，以实现无人清洗、安全可靠，深受光伏业界青睐。

The Geometry Corporation of Smart City Technology (Guangzhou) LTD. (W-GCST, for short) is a national-level high-tech enterprise that integrates production, university, and research. The company is specialized in the development and industrialization of nano material in the photovoltaic (PV) field. Our patented Nano High-efficiency PV Panel Self-cleaning Products had passed the national technical appraisal, and we had completed the technological registration and CE certificate. The Intelligent Sprinkler and Management System, developed by W-GCST, can improve the PV power generation by more than 5%.



实验室

Lab

自洁净材料研究所
Research Institute for Self-cleaning Material



光催化材料研究所
Research Institute for Photocatalytic Material



光伏试验基地

PV Test Base

此光伏试验基地包含自洁净材料试验区、工艺探究试验区、多角度试验区，每个区域都能独立进行试验。能对纳米高效光伏板自洁净剂在不同类型光伏电站的实际应用进行试验。

The base consists of the testing areas for self-cleaning material, technical research and multi-angle tests. Every area can be operated independently. The base can test the performance of Nano High-efficiency PV Panel Self-cleaning Agent in different types of PV power stations.



平台及产品介绍

OUR PLATFORM & PRODUCTS

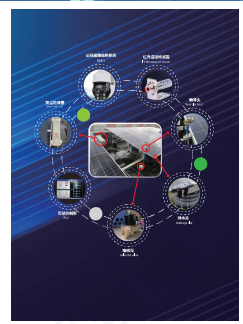


智慧运维管理软件

Intelligent O&M Management Software

可本地管理、集中管理、手机APP远程管理，
实现光伏电站的无人化智慧运维

Helping the stations to realize the Unmanned O&M via local management, centralized management and remote management by phone APP



自洁运维管理智能装备

Self-cleaning and O&M Management Installations

包括灰尘检测器、自动喷淋系统、PLC、
红外温度传感器、远程视频监控系統

Consisting of Dust Monitor, Automatic Sprinkler System, PLC, Infrared (IR) Temperature Sensor, Remote Video Monitoring System (RVMS)



纳米高效光伏板自洁净剂

Nano High-efficiency PV Panel Self-cleaning Agent

针对不同污染物去调试配方，防尘、抗污、
自洁净

Different self-cleaning formulas for proofing dust and contaminants

几何智慧自主创新研发的智慧喷淋及运维管理平台，集自洁净材料、自动喷淋、智慧管理于一体，可实现无人清洗、值守，安全可靠，能提升发电效率5%以上，为光伏发电提质增效。

The Intelligent Sprinkler and O&M Management Platform, developed by W-GCST, can improve the PV power generation by more than 5%. This Platform consists of the self-cleaning material, automatic sprinkler and intelligent management. Using the system, users can realize the unmanned operation and management safety.



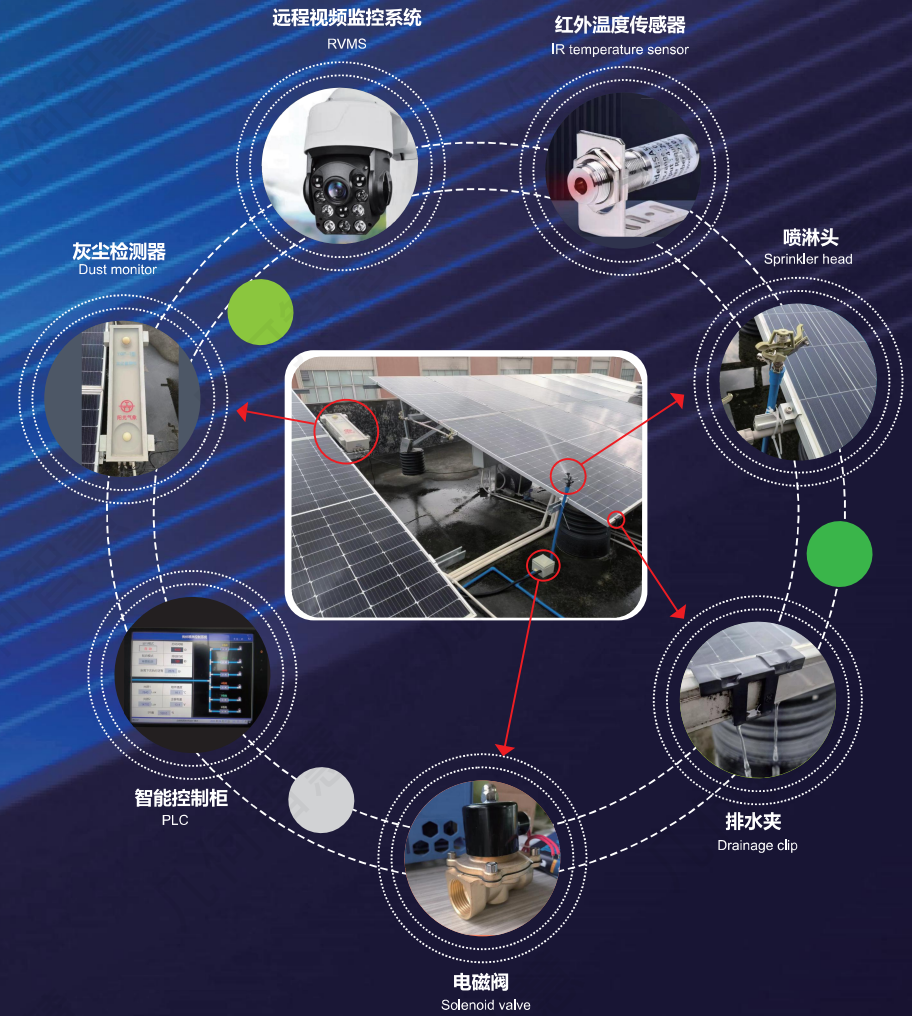
智慧运维管理软件

INTELLIGENT O&M MANAGEMENT SOFTWARE



自洁运维管理智能装备

SELF-CLEANING AND O&M MANAGEMENT INSTALLATIONS



■ 纳米高效光伏板自洁净剂

NANO HIGH-EFFICIENCY PV PANEL SELF-CLEANING PRODUCTS

几何智慧专利产品“纳米高效光伏板自洁净剂”，已通过国家产品技术鉴定、科技成果备案、欧盟CE认证，广东省高新名优产品认证。可广泛应用于分布式、集中式电站。

The Nano High-efficiency PV Panel Self-cleaning Agent had passed the national technical appraisal, and we had completed the technological registration and CE certificate. The patented product, widely used in centralized or distributed power station, and was certified as the Excellent High-tech Product in Guangdong Province.



纳米高效自洁净剂CE认证



广东省名优高新技术产品证书



纳米高效光伏板自洁净剂科技成果登记证书

纳米高效光伏板自洁净剂（粉尘、雾霾专用）

Nano High-efficiency PV Panel Self-cleaning Agent for Dust and Smog



型号 Product Code	W-GCST001-1	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、去离子水、助剂等 Nano-SiO ₂ , deionized water, auxiliary agent, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、耐水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 粉尘 、 雾霾 污染的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by dust and Smog	

纳米高效光伏板自洁净剂 (鸟粪专用)

Nano High-efficiency PV Panel Self-cleaning Agent for Bird Droppings



型号 Product Code	W-GCST001-2	
样式 Type	A	B
成分 Ingredients	纳米二氧化钛、氧化锡、去离子水、助剂等 Nano-TiO ₂ , SnO, deionized water, auxiliary agent, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	光催化、自洁净、耐腐蚀、耐水、耐酸碱 Photocatalysis, anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 鸟粪 污染的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by dust and Smog	

纳米高效光伏板自洁净剂 (油漆等聚合物专用)

Nano High-efficiency PV Panel Self-cleaning Agent for Paint and Other Polymers



型号 Product Code	W-GCST001-4	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、去离子水、聚硅氧烷等 Nano-SiO ₂ , deionized water, silicone oil, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、耐水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 油漆等聚合物 污染的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by paint and other polymer	

纳米高效光伏板自洁净剂 (铁屑专用)

Nano High-efficiency PV Panel Self-cleaning Agent for Iron Dust



型号 Product Code	W-GCST001-3	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、抗锈剂、去离子水、助剂等 Nano-SiO ₂ , rust preventer, deionized water, auxiliary agent, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、耐水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 铁屑 污染的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by iron dust	

纳米高效光伏板自洁净剂 (纸屑专用)

Nano High-efficiency PV Panel Self-cleaning Agent for Paper Dust



型号 Product Code	W-GCST001-5	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、纳米氧化锌、去离子水、助剂等 Nano-SiO ₂ , nano-ZnO, deionized water, auxiliary agent, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、耐水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 纸屑 污染的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by paper dust	

纳米高效光伏板自洁净剂（木屑专用）

Nano High-efficiency PV Panel Self-cleaning Agent for Wood Dust



型号 Product Code	W-GCST001-6	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、去离子水、氧化锆、助剂等 Nano-SiO ₂ , deionized water, ZrO ₂ , auxiliary agent, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、防水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 木屑污染 的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by wood dust	

纳米高效光伏板自洁净剂（积雪专用）

Nano High-efficiency PV Panel Self-cleaning Agent for Snow



型号 Product Code	W-GCST001-8	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、去离子水、聚硅氧烷等 Nano-SiO ₂ , deionized water, silicone oil, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、防水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 积雪 影响的光伏板表面的自洁净 Used for the self-cleaning on PV panels covered by snow	

纳米高效光伏板自洁净剂（盐雾专用）

Nano High-efficiency PV Panel Self-cleaning Agent for Salt Mist



型号 Product Code	W-GCST001-7	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、纳米银、去离子水、助剂等 Nano-SiO ₂ , nano-Silver, deionized water, auxiliary agent, etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、防水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于受 盐雾 污染的光伏板表面的自洁净 Used for the self-cleaning on PV panels polluted by salt mist	

纳米高效光伏板光修复自洁剂

Nano High-efficiency Light Repair and Self-cleaning Agent for PV Panel



型号 Product Code	W-GCST001-9	
样式 Type	A	B
成分 Ingredients	纳米二氧化硅、聚硅氮烷、氧化石墨烯等 Nano-SiO ₂ , polysilazane (PSZ), graphene oxide (GO), etc.	
规格/桶 Net Vol.	20L	
有效期 (年) Valid Period (Y)	3	5
性能 Performance	自洁抗污、耐腐蚀、防水、耐酸碱 Anti-contamination and self-cleaning, Excellent weatherability and corrosion resistance, Waterproof, acidproof and alkali-resisting	
用途 Usage	用于 光伏板表面损伤后光的修复 ，且具有自洁功能 Used for the light repairing and surface self-cleaning on PV panels	

应用案例

APPLIED CASES

自洁净材料项目

APPLIED CASE OF THE SELF-CLEANING MATERIAL

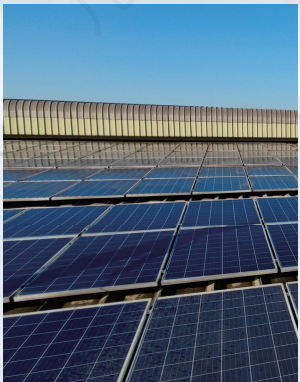
中石化恒力泰光伏项目 / Henglilai PV Project



自洁净材料+智慧管理系统项目

APPLIED CASE OF SELF-CLEANING MATERIAL & INTELLIGENT MANAGEMENT SYSTEM

佛山综合能源美特光伏项目 / Meite PV Project



渔光互补项目

CASE IN FISHING-SOLAR COMPLEMENTARY PV POWER STATION

中节能200MW光伏项目 / 200MW PV Project of CECEP GROUP



黄石华电光伏项目

Huangshi PV project of CHD



陆坡光伏项目

Lupo PV project



南沙粮食码头光伏项目

Nansha Port PV project



阳西酱酒厂光伏项目

Yangxi PV project



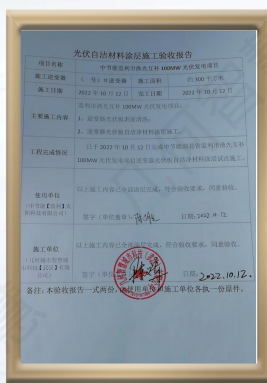
广州发展新能源光伏项目

GDG Energy PV project



新星石油光伏项目

Sinopec Star PV project



.....



2023年3月，中石化新星公司执行董事、党委书记党力强到海南分公司光伏项目现场调研指导。他要求，要积极论证自动清洁设施的经济可行性。在今后的项目建设中加以应用，全方位优化项目管理、降低运行成本、实现管理提效。

In March 2023, Dang Liqiang, executive director and party secretary of Sinopec Star Co, Ltd., went to the Hainan branch to investigate the PV power station. He stressed the demand of promoting the economical possibilities for self-cleaning facilities. It can be applied in future PV projects to achieve all-round optimization of project management, reduce operating costs, and improve management efficiency.



01

供应自洁净材料

W-GCST Supplies the Self-cleaning materials for all centralized and distributed PV power stations

02

设计和安装电站智慧运维系统

W-GCST can design and install the Intelligent O&M Management System for PV power stations

03

建设电站智慧运维管理平台

W-GCST constructs the Intelligent O&M Management Platform for PV power stations

‘ 我们的服务
OUR SERVICES ’

■ 成果及荣誉 COMPANY HONORS

几何智慧现健全了质量、环境、健康及知识产权四大管理体系。2022年入选广州市硬科技百强企业、广东省创新型中小企业。公司成立三年以来，共获得国家、省、市、区级多项奖励。

W-GCST has passed ISO Management Systems. In 2022, W-GCST was selected to be one of the Top 100 Hard Technology Enterprises by Guangzhou Municipality. Also, W-GCST was selected to be of the Innovative Small and Medium-sized Enterprise by Guangdong Province. W-GCST, as a high-tech enterprise, has won multiple awards of national level, provincial level, and municipal level.

① 通过ISO9001、14001和45001三体系认证

② 通过知识产权体系认证



质量管理

职业健康

环境管理

知识产权



高新技术企业认证证书



2022年广州市硬科技企业培育百强证书

■ 荣誉墙 AWARDS



第十一届中国创新创业大赛洁净能源产业技术创新专业赛优秀企业奖



2022港科大百万奖金创业大赛至尊金奖



2022创新创业大赛纳米产业技术创新大赛三等奖



第十一届中国创新创业大赛（广东广州赛区）成长组优秀奖



第十一届中国创新创业大赛纳米产业技术创新专业全国总决赛成长组三等奖



第十一届中国创新创业大赛纳米产业技术创新专业全国总决赛全国50强