

IAQ QUALITY SUSTAINABILITY AWARD 2022 - ONE-PAGE SUMMARY

The One-Page Summary should be filled in and submitted as Appendix 1 to your Application. It will also be published on the IAQ Quality Sustainability Award Homepage; <http://iaqaward.com>. The length of this document must not exceed 1 page.

Project and contact details

The name of the quality sustainability project (max. 100 characters)

Implement A “Renewing Cabin” Model for Repossessed Assets to Recreate Value and Realize Win-Win in Quality and Efficiency

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Organisation(s), country, where the project-members are working, including Web-page links

http : //portal.nx.sgcc.com.cn.State Grid Corporation of China; Yinchuan, Ningxia, China; Yinchuan Power Supply Company, State Grid Ningxia Electric Power Co., Ltd.; <http://portal.nx.sgcc.com.cn>

Project description

Explain the essence of the project, the problem statement, the analysis performed, steps taken, and methodology used. When was it started and when was it completed? What quality methods and tools have been used and why? What are the results achieved and in what way do they support the UN Sustainability Development Goals. <https://sustainabledevelopment.un.org/> leading towards sustainable development. Mention which UN Sustainability Development Goals in particular, the project supports. (You may delete this support-text in this textbox before submission.)

At present, the removed watt-hour meters are chiefly sorted manually in China, and there are only few technical methods for manual identification of watt-hour meter faults. The scrapped watt-hour meters need to be damaged, and the damaged meters are not favored by recyclers, and the recovery price is low, resulting in huge resource waste and environmental pollution. The “Renewing Cabin” whole-process intelligent treatment system for removed watt-hour meters began to be developed in 2019. After three iterations of upgrading, the system was popularized and applied in 2021. Following the concept of sustainability development, the “Renewing Cabin” strives for the harmonious co-existence among society, environment and interest stakeholders. After the system was put into service at the pilot for one year, compared with the previous year, the treatment capacity was increased by 35,000 meters, while the working time was reduced by 11,878 hours. The work efficiency was increased by 12.1 times, the accuracy of meter information entry increased from 80% to 100%. In terms of environmental protection, the size of dry ice particles is innovatively adjusted to 0.25mm, which is most suitable for cleaning watt-hour meters, achieving a double leap in cleaning efficiency and effect, with zero emission and pollution in the whole process. After the application of the “Renewing Cabin”, 5,687 watt-hour meters were recycled in Yinchuan City, with a 1.6 times increase in recycling rate. The auction revenue of scrapped meters was increased by RMB 321,000, the yield rate of scrapped meters increased by 43%, the labor costs reduced by RMB 192,000, creating a total economic value of RMB 1.395 million. In addition, the system provides the watt-hour meter manufacturers with customized services for batch operation fault data analysis to promote their product upgrading and enhance their product competitiveness.

The project can support the SDG 7 “Affordable and Clean Energy”, SDG 9 “Industries, Innovation and Infrastructure”, and SDG 11 “Sustainable Cities and Communities”.

Project leverage potential

Picture/Image describing the project

Describe how you see that the results from the project can be used and leveraged by others. In what way can the project be replicated by others? How and where do you see the project principles and results could be used elsewhere, in other areas or applications/businesses? If the results already have been leveraged to other products, processes, activities, etc. make

The “Renewing Cabin” consists of two sets of marketable devices with intellectual property rights. There are three forms of promotion. The first is to transfer the core intellectual property rights such as patents and software copyrights as a package; the second is to have investors optimize the investment for the project and distribute the profits according

clear how and what the results are. (You may delete this support-text in this textbox before submission.)

to the investment amount; the third is to attract more investors by lowering the sales price of the products, and allow these investors to make sales profits through their own channels. The “Renewing Cabin” serves the old meter market and can be customized according to customer needs. The various electronic components and shells decomposed can be sold to the component manufacturers to effectively promote the sustainability development of resources. Now, we have won the cooperation intention from water, natural gas and electric vehicle companies to customize their exclusive renewing cabin, and we plan to promote the renewing cabin to more intelligent precision equipment fields to maximize its value.