# 惠城环保 Qingdao Huicheng Environmental Technology Group (300779 CH)

## 主业 fcc 催化剂业绩稳健，进军混合废旧塑料裂解“蓝海”市场

Main business FCC catalyst performed steadily & Entering blue ocean market of mixed waste plastic cracking

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热点速评 Flash Analysis

(Please see APPENDIX 1 for English summary)

- **公司专业从事为石油化工行业提供危险废物处理处置服务并将危险废物进行有效循环再利用。**公司主营业务始终坚持废催化剂资源循环再利用的技术处置路线，同时为炼油企业提供 FCC 催化剂（新剂）、复活催化剂、再生平衡剂等资源化综合利用产品。在现有产品分类上积极拓展分子筛、助剂产品的销售。公司自主研发的高硫石油焦制氢灰渣综合利用技术为广东石化提供了高硫石油焦制氢灰渣资源化处理处置服务；工业烟气非氨基还原除酸脱硝技术也已为多家炼化企业提供综合服务方案。2022 年公司实现营业总收入 36323.20 万元，同比增长 27.51%；利润总额 197.99 万元，同比下降 86.08%；归属于母公司股东净利润 247.36 万元，同比下降 78.96%。

- **公司 FCC 催化剂市场前景广阔，仍有很大提升空间。**1）公司主营业务始终坚持废催化剂资源循环再利用的技术处置路线，同时为炼油企业提供 FCC 催化剂（新剂）、复活催化剂、再生平衡剂等资源化综合利用产品。 2）资源化综合利用产品 2022 年营业收入为 2.44 亿元，占总营业收入的 67.07%。在今后 10～20 年甚至更长时间，石油依然是最重要的能源提供者，而催化裂化工艺作为重质油轻质化过程之一，在汽油和柴油等轻质产品的生产中占举足轻重的地位，是炼厂获取经济效益的重要手段，因此保证了催化裂化催化剂在未来的需求依然保持低速稳定增长。 3）公司规划的 30000 吨/年 FCC 催化装置固体废弃物再生及利用项目、 4 万吨/年 FCC 催化新材料项目（一阶段）以及子公司承建的石油焦制氢灰渣及催化裂化废催化剂循环利用项目相继开工，项目累计投资较大，同时增加公司原有产能。2023 年 2 月，随着公司“惠城转债”募投项目建成投产，公司新增 2 万吨/年 FCC 催化（新剂）产能。截至 2023 年 3 月底，公司资源化综合利用主要产品 FCC 催化剂（新剂）合计产能为 4 万吨/年。

- **公司高硫石油焦制氢灰渣综合利用技术效益兑现。**1）高硫石油焦制氢灰渣综合利用技术是公司自主创新的解决高硫石油焦制氢灰渣循环利用的绿色环保治理技术。广东石化炼化一体化项目由于其炼制原油的特性，采用了高硫石油焦制氢气的技术路线，其建设的高硫石油焦制氢装置是全国首套装置，公司子公司广东东粤承建的石油焦制氢灰渣处置项目为广东石化炼化一体化项目配套环保装置，也为国内首套装置，该项目已于 2022 年年底投入运行。2）2022 年在前三季度累计亏损 970 余万的情况下，在第四季度实现扭亏为盈，也扭转了连续三年营业收入的下降的趋势。3）2022 年底，公司为中国石油广东石化公司炼化一体化项目配套的石油焦制氢灰渣综合利用项目脱碳车间完成转固投入运行，公司部分产能释放，2023 年 2 月该项目完成转固，公司新增危险废物处理处置产能 20 万吨/年。截至 2023 年 3 月底，公司危险废物处置全年产能为 228480 吨/年。

- **公司在研的混合废塑料深度裂解制化工原料技术取得了突破性进展。**1）该技术的实现将大幅减少前端石化原料生产塑料及后端塑料焚烧带来的二氧化碳排放，真正实现了低值资源的高值绿色循环。2）1 万吨/年工业固废处理及资源化利用项目在建；公司拟在揭阳市大南海石化工业区建设 20 万吨/年混合废塑料资源化综合利用示范性项目，项目计划投资总额 11.99 亿元。

- **投资建议：**考虑到新项目不确定性，暂不讨论评级。

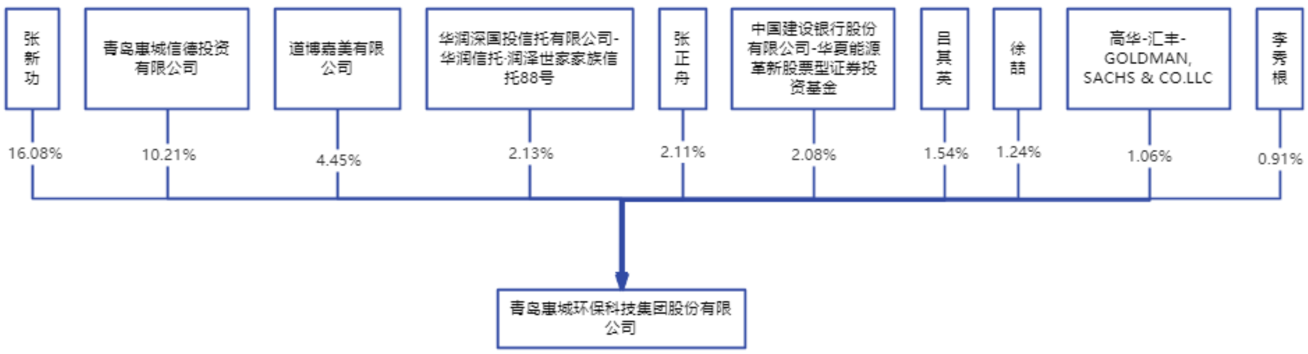
- **风险提示：**宏观经济环境变化的风险；下游市场需求不及预期的风险；在建产能投产进度不及预期的风险。

## 一、公司专业从事为石油化工行业提供危险废物处理处置服务并将危险废物进行有效循环再利用

公司主营业务始终坚持废催化剂资源循环再利用的技术处置路线，同时为炼油企业提供 FCC 催化剂（新剂）、复活催化剂、再生平衡剂等资源化综合利用产品。在现有产品分类上积极拓展分子筛、助剂产品的销售。公司自主研发的高硫石油焦制氢灰渣综合利用技术为广东石化提供了高硫石油焦制氢灰渣资源化处理处置服务；工业烟气非氨基还原除酸脱硝技术也已为多家炼化企业提供综合服务方案。

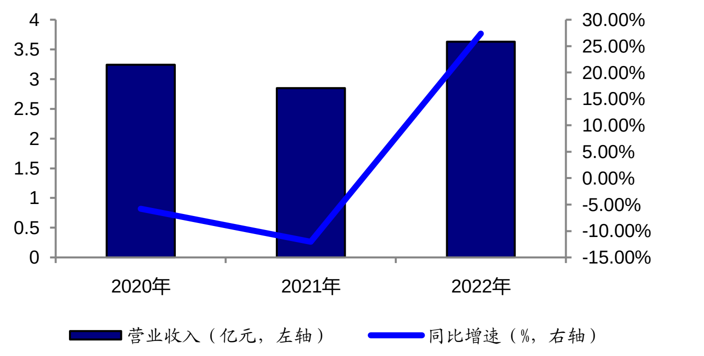
根据公司 2020-2022 年报告，公司 2020-2022 年营业收入分别为 3.24 亿元、2.85 亿元、3.63 亿元，2020-2022 年营业收入复合增长率为 3.86%，销售毛利率分别为 28.82%、28.31%、21.55%，销售净利率分别为 8.34%、4.13%、0.74%。公司 2022 年资源化综合利用产品、危险废物处理处置服务、三废治理业务收入分别为 2.44 亿元、0.39 亿元、0.22 亿元，收入占比分别为 68.08%，11.00%，6.04%，资源化综合利用产品是营业收入的主要来源。

**图 1 股权结构图（截至 2023 年一季报）**



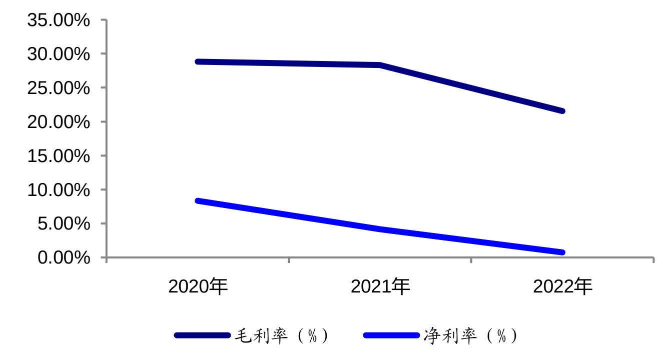

资料来源：choice 金融终端，海通国际整理

**图 2 公司 2020-2022 年营业收入与同比增速**



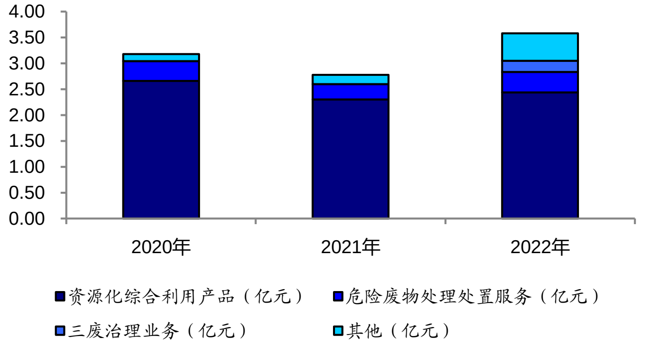

资料来源:choice 金融终端，海通国际整理

**图 3 公司 2020-2022 年销售毛利率和净利率**



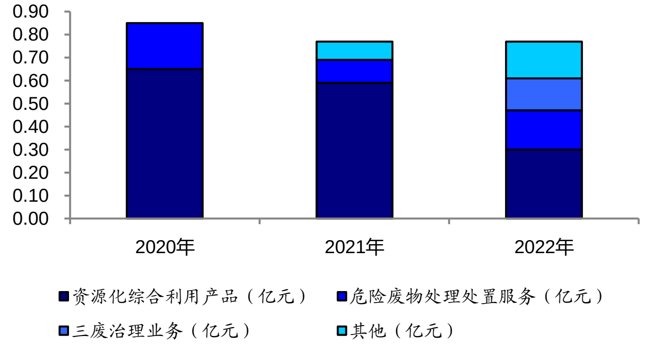

资料来源:choice 金融终端，海通国际整理

**图 4 公司 2020-2022 年营业收入结构**



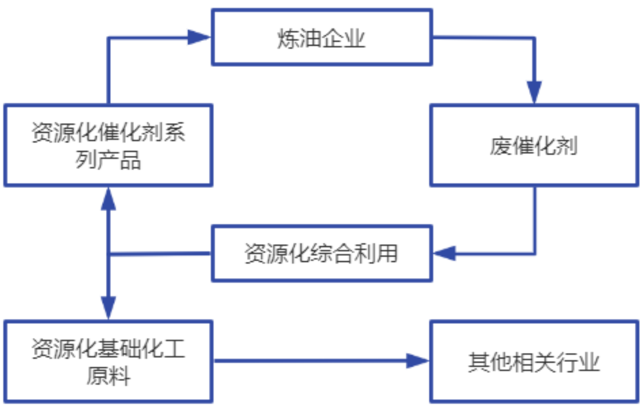

资料来源:choice 金融终端，海通国际整理

**图 5 公司 2020-2022 年分业务毛利**




资料来源:choice 金融终端，海通国际整理

**图 6 公司所处产业链情况**




资料来源：公司招股说明书，海通国际整理

公司现有催化剂产能 4 万吨/年，未来公司的重点还是在稳定原有客户的基础上积极开拓国有客户；在现有产品分类上积极拓展分子筛、助剂产品的销售。

公司规划的 30000 吨/年 FCC 催化装置固体废弃物再生及利用项目、4 万吨/年 FCC 催化新材料项目（一阶段）以及子公司承建的石油焦制氢灰渣及催化裂化废催化剂循环利用项目相继开工，项目累计投资较大，同时增加公司原有产能。 对此公司将全面统筹规划，做好项目投入运行管理工作和产能消化工作， 早日实现项目收益，确保公司持续稳定发展。同时随着新技术研发进度到工业化落地的进度，公司要设立不同的项目公司支持新业务布局，主要是废塑料裂解制化工原料项目、以及原料收集及预处理配套项目。在新疆区域成立了巴州惠疆环保治理有限公司致力打造领先的农膜生产→残膜回收→膜渣分离→废塑料裂解制化工原材料的“ 白色污染” 治理循环产业链并在全疆推广。同时和有需求的垃圾中转站合作建设垃圾分选项目，规划布局低值废塑料回收体系。

**表 1 公司 2022 年产能与拟建产能情况**

| 产品名称 | 单位 | 已有产能 | 在建产能(吨/年) | 备注 |
|---|---|---|---|---|
| 资源化综合利用产品 | 吨/年 | 34850 | 20000 | 装置建成，进入试生产阶段 |
| 危险废弃物处理处置服务 | 吨/年 | 28480 | 230000 | 装置建成，进入试生产阶段 |

资料来源：公司公告、2022 年报、海通国际整理

公司不仅在稳定的业务中开展科研立项，提升催化剂、助剂、分子筛等产品性能改进、产品升级。同时更多聚焦绿色低碳环保治理技术， 主要核心技术包括固体废催化剂资源化技术、高硫石油焦制氢灰渣综合利用技术、混合废塑料深度裂解制化工原料技术、 工业废硫酸化学链循环利用技术、工业烟气非氨基还原除酸脱硝技术、含盐(硫酸钠)污水再利用技术等，研发成果显赫。 目前拥有 34 例授权专利，其中发明授权 23 例，实用新型 11 例。 随着行业市场竞争的日渐激烈、环保监管形势的趋严，技术优势在市场竞争中的地位越来越突出，成为各环保企业开拓业务市场、抢占市场份额的根基。拥有核心技术及持续创新研发能力是民营环保企业长期稳定发展的重要保障。

**APPENDIX 1**

**Summary**

- **The company specializes in providing hazardous waste treatment and disposal services for the petrochemical industry and effectively recycling and reusing hazardous waste.** The company's main business always adheres to the technical disposal route of recycling and reusing waste catalyst resources, and provides comprehensive resource utilization products such as FCC catalysts (new agents), reactivation catalysts, and regeneration balancing agents for refining enterprises. Actively expand the sales of molecular sieve and auxiliary products in the existing product classification. The comprehensive utilization technology of high sulfur Petroleum coke hydrogen production ash independently developed by the company has provided Guangdong Petrochemical with high sulfur Petroleum coke hydrogen production ash resource treatment and disposal services; The non-amino reduction acid and denitrification technology for industrial flue gas has also provided comprehensive service solutions for multiple refining and chemical enterprises. In 2022, the company achieved total operating revenue of RMB363.232mn (YoY +27.51%); The total profit was RMB1.9799mn (YoY -86.08%); The net profit was RMB2.4736mn (YoY -78.96%).
- **The company's FCC catalyst market has broad prospects and still has great room for improvement.** 1) The company's main business always adheres to the technical disposal route of recycling and reusing waste catalyst resources, and provides comprehensive resource utilization products such as FCC catalysts (new agents), reactivation catalysts, and regeneration balancing agents for refining enterprises. 2) The operating revenue of resource-based comprehensive utilization products in 2022 was RMB244mn, accounting for 67.07% of the total operating revenue. In the next 10-20 years or even longer, petroleum will continue to be the most important energy provider, and catalytic cracking process, as one of the lightweight processes of heavy oil, plays a crucial role in the production of light products such as gasoline and diesel, and is an important means for refineries to obtain economic benefits. Therefore, it ensures that the demand for catalytic cracking catalysts remains stable at a low speed in the future. 3) The 30000 t/a FCC catalytic unit solid waste recycling and utilization project, the 40000 t/a FCC catalytic new material project (Phase I) and the Petroleum coke hydrogen production ash and catalytic cracking waste catalyst recycling project undertaken by the subsidiary company have been successively started. The accumulated investment in the project is large, and the original capacity of the company has been increased. In February 2023, with the completion and operation of the company's "Huicheng Convertible Bond" fundraising project, the company added 20000 tons/year of FCC catalytic (new agent) production capacity. As of the end of March 2023, the total production capacity of the company's main resource utilization product FCC catalyst (new agent) is 40000 tons/year.
- **The technical benefits of the Company's comprehensive utilization of high sulfur Petroleum coke hydrogen production ash are realized.** 1) The comprehensive utilization technology of high sulfur Petroleum coke hydrogen production ash is a green environmental protection treatment technology independently innovated by the company to solve the problem of high sulfur Petroleum coke hydrogen production ash recycling. Due to the characteristics of refining crude oil, Guangdong Petrochemical Refining and Chemical Integration Project has adopted the Technology roadmap of hydrogen production from high sulfur Petroleum coke. Its high sulfur Petroleum coke hydrogen production unit is the first unit in China. The ash disposal project of Petroleum coke hydrogen production undertaken by Guangdong Dongyue, a subsidiary of the company, is a supporting environmental protection device for Guangdong Petrochemical Refining and Chemical Integration Project and also the first unit in China. The project has been put into operation at the end of 2022. 2) In 2022, despite a cumulative loss of over RMB9.7mn in 2022Q1-Q3, it achieved a turnaround in 2022Q4 and also reversed the trend of declining operating revenue for three consecutive years. 3) At the end of 2022, the decarburization workshop of the Petroleum coke hydrogen production ash comprehensive utilization project supporting the refining and chemical integration project of PetroChina Guangdong Petrochemical Company was put into operation, and part of the company's capacity was released. In February 2023, the project was completed, and the company added 200000 tons/year of hazardous waste treatment capacity. As of the end of March 2023, the company's annual hazardous waste disposal capacity is 228480 tons/year.
- **The company has made breakthrough progress in the deep cracking of mixed waste plastics to produce chemical raw materials technology under research.** 1) The implementation of this technology will significantly reduce the carbon dioxide emissions caused by the production of plastic from front-end petrochemical raw materials and the incineration of back-end plastic, truly achieving a high value green cycle of low value resources. 2) A 10000 ton/year industrial solid waste treatment and resource utilization project is under construction; The company plans to build a 200000 t/a mixed waste plastic comprehensive utilization demonstration project in Jieyang Danhai Petrochemical Industrial Zone, with a total planned investment of RMB1.199bn.
- **Investment suggestions:** Considering the uncertainty of the new project, we will not discuss the rating for the time being.
- **Risks:** The risk of changes in the macroeconomic environment; The risk of lower than expected downstream market demand; There is a risk that the production progress of the ongoing production capacity may not be as expected.

## 附录 APPENDIX

### 重要信息披露

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**优于大市**，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

**中性**，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

**弱于大市**，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100, 美国 – SP500; 其他所有中国概念股 – MSCI China.

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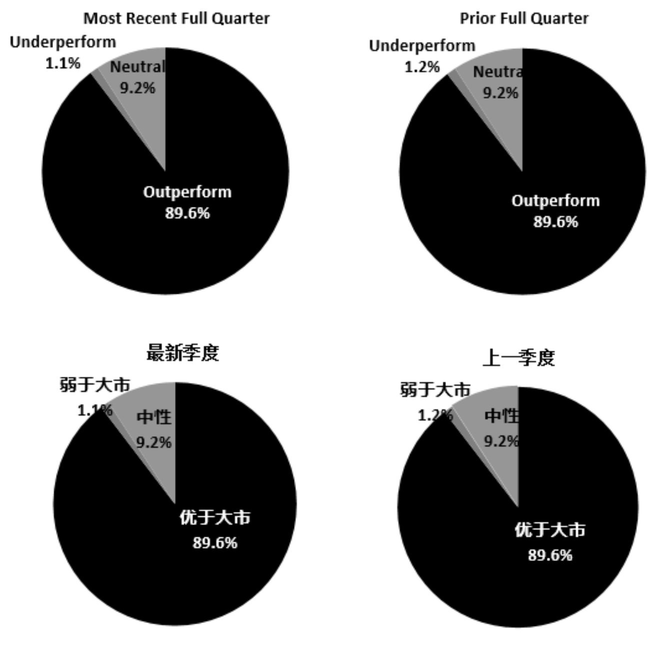
**Outperform:** The stock's total return over the next 12-18 months is expected to exceed the return of its relevant broad market benchmark, as indicated below.

### 评级分布 Rating Distribution



**Neutral:** The stock's total return over the next 12-18 months is expected to be in line with the return of its relevant broad market benchmark, as indicated below. For purposes only of FINRA/NYSE ratings distribution rules, our Neutral rating falls into a hold rating category.

**Underperform:** The stock's total return over the next 12-18 months is expected to be below the return of its relevant broad market benchmark, as indicated below.

**Benchmarks for each stock's listed region are as follows: Japan – TOPIX, Korea – KOSPI, Taiwan – TAIEX, India – Nifty100, US – SP500; for all other China-concept stocks – MSCI China.**

**截至 2023 年 6 月 30 日海通国际股票研究评级分布**

| | 优于大市 | 中性<br>(持有) | 弱于大市 |
|---|---|---|---|
| 海通国际股票研究覆盖率 | 89.6% | 9.2% | 1.1% |
| 投资银行客户* | 4.7% | 5.6% | 10.0% |

*在每个评级类别里投资银行客户所占的百分比。

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**此前的评级系统定义（直至 2020 年 6 月 30 日）：**

买入，未来 12-18 个月内预期相对基准指数涨幅在 10%以上，基准定义如下

中性，未来 12-18 个月内预期相对基准指数变化不大，基准定义如下。根据 FINRA/NYSE 的评级分布规则，我们会将中性评级划入持有这一类别。

卖出，未来 12-18 个月内预期相对基准指数跌幅在 10%以上，基准定义如下

各地股票基准指数：日本 – TOPIX, 韩国 – KOSPI, 台湾 – TAIEX, 印度 – Nifty100; 其他所有中国概念股 – MSCI China.

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|---|---|---|---|
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