

2024





|          |       |           |
|----------|-------|-----------|
|          | ..... | <b>I</b>  |
| <b>1</b> | ..... | <b>4</b>  |
| 1.1      | ..... | 4         |
| 1.2      | ..... | 4         |
| 1.3      | ..... | 4         |
| 1.4      | ..... | 5         |
| 1.5      | ..... | 5         |
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| 2.1      | ..... | 5         |
| 2.1.1    | ..... | 5         |
| 2.1.2    | ..... | 5         |
| 2.2      | ..... | 6         |
| 2.2.1    | ..... | 6         |
| 2.2.2    | ..... | 7         |
| 2.3      | ..... | 8         |
| 2.4      | ..... | 8         |
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# 1 概述

## 1.1

GHG

GHG

GHG

GHG

GHG

GHG

GHG

## 1.2

### 1-1

|     |                 |                 |                  |      |      |                 |                 |
|-----|-----------------|-----------------|------------------|------|------|-----------------|-----------------|
|     | GHG             |                 |                  |      |      |                 |                 |
|     | 1               |                 |                  |      |      |                 | GHG             |
|     | 2               |                 |                  |      |      |                 |                 |
|     | GHG             |                 |                  |      |      |                 |                 |
|     | 3               |                 |                  |      |      |                 |                 |
|     | 4               |                 |                  |      |      |                 |                 |
|     | 5               |                 |                  |      | GHG  | GHG             |                 |
|     | 6               |                 |                  | GHG  |      |                 |                 |
| / / | GHG             |                 |                  |      |      |                 |                 |
|     | CO <sub>2</sub> | CH <sub>4</sub> | N <sub>2</sub> O | HFCs | PFCs | SF <sub>6</sub> | NF <sub>3</sub> |

|  |          |            |
|--|----------|------------|
|  | 2024 1 1 | 2024 12 31 |
|  | 2024     |            |

**1.3**

ISO 14064-1 2018

ISO 14064-3 2019

1

2 2006 IPCC 2019

3 IPCC

4 2022

5

**1.4**

**1.5**

5%

**2**

**2.1**

**2.1.1**

2-1 /

|  |   |
|--|---|
|  | / |
|  | / |
|  |   |

|

2024

2

3)

4) /

5)

CO<sub>2</sub> CH<sub>4</sub> N<sub>2</sub>O HFCs

GHG

GHG

6

CO<sub>2</sub> CH<sub>4</sub> N<sub>2</sub>O HFCs

7

8

GHG

9 GHG

10 GHG

### 2.2.2

1

GHG

2

1

GHG

2

3

GHG

4

2.3

2-3

|                        | /                | /   | / |
|------------------------|------------------|---|---|
| 2025.8.21<br>9:00-9:15 |                  | / /<br>/ /<br>/ /<br>/ /<br>/ /<br>/ /<br>/ / |   |
| 2025.8.21<br>9:15-9:30 | ➤ CCSC<br>➤<br>➤ | / /<br>/ /<br>/ /<br>/ /                      |   |

|                          |  |   |  |
|--------------------------|--|---|--|
|                          | <ul style="list-style-type: none"> <li>➤</li> <li>➤</li> <li>➤</li> <li>➤</li> </ul> | / /QS<br>/ /                                    |  |
| 2025.8.21<br>9:30-10:00  |  | / /<br>/ /<br>/ /                               |  |
| 2025.8.21<br>10:00-11:00 |  | / /<br>/ /<br>/ /<br>/ /<br>/ /QS<br>/ /        |  |
| 2025.8.21<br>11:00-12:00 | -<br><br>-<br><br>GHG  | / /<br>/ /<br>/ /<br>/ /<br>/ /<br>/ /QS<br>/ / |  |
| 2025.8.21<br>11:00-12:00 | -<br><br>-<br><br>GHG  | / /<br>/ /<br>/ /<br>/ /<br>/ /<br>/ /QS<br>/ / |  |
| 2025.8.21<br>13:30-16:00 |  | / /<br>/ /<br>/ /<br>/ /<br>/ /<br>/ /QS<br>/ / |  |
| 2025.8.21<br>13:30-16:00 |  | / /<br>/ /<br>/ /<br>/ /                        |  |



|  |                    |      |        |
|--|--------------------|------|--------|
|  |                    |      |        |
|  | 91500000327722347H |      | 400714 |
|  |                    |      | 13231  |
|  | 2025-01-08         |      |        |
|  |                    |      |        |
|  |                    | 2021 | 19     |
|  | 13231              | 100  |        |

### 3.2 GHG

/

/

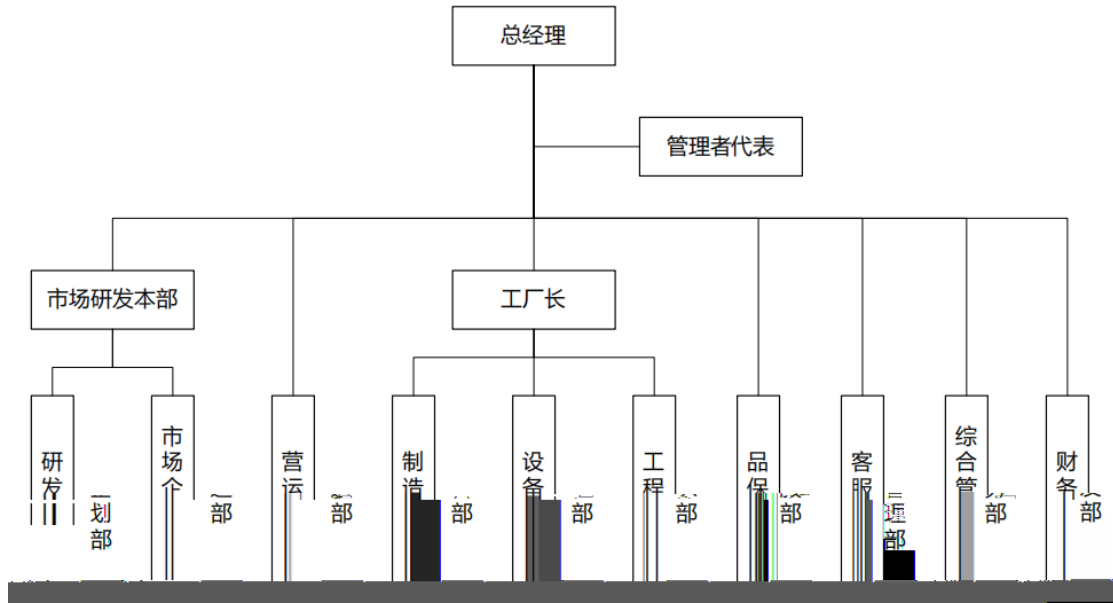
#### 3-2

|   |  |   |      |   |  |
|---|--|---|------|---|--|
|   |  |   |      |   |  |
| 1 |  | - | -    | 1 |  |
| 2 |  |   | 2.5S | 1 |  |

3-3

|   |  |                     |       |   |  |  |
|---|--|---------------------|-------|---|--|--|
| 1 |  | GUWD-6A             | 5kW   | 1 |  |  |
| 2 |  | GUWD-6A+G<br>WD-6A  | 5kW   | 1 |  |  |
| 3 |  | GUWD-6A+G<br>WD-6A  | 5kW   | 2 |  |  |
| 4 |  | GUC-280MR-R<br>2R   | 25kW  | 2 |  |  |
| 5 |  | RPAALO514           | 19kW  | 1 |  |  |
| 6 |  | VIEWMAXL10<br>.12.3 | 3kW   | 1 |  |  |
| 7 |  |                     | 5kW   | 1 |  |  |
| 8 |  | E450i               | 450kW | 1 |  |  |
| 9 |  | ZK1.75              | 150   | 4 |  |  |

GHG



3-1 GHG

### **3.3 GHG**

#### **3.3.1**

3-4

| GHG |                 |          |                |                |       |          |
|-----|-----------------|----------|----------------|----------------|-------|----------|
|     |                 | 2.0761   | m <sup>3</sup> |                | 2024  | 2.0761   |
|     |                 |          |                | m <sup>3</sup> |       |          |
|     |                 | 4.87     | t              |                | 2024  | 6666.13L |
|     |                 |          |                | 4.87t          |       |          |
|     |                 | 0.12     | t              |                | 2024  | 120kg    |
|     |                 |          |                |                | 2024  |          |
|     | CH <sub>4</sub> | 53026    | .              |                | 2024  | 2024     |
|     |                 |          |                | 53026          |       |          |
|     |                 | 9786.600 | MWh            |                |       |          |
|     |                 |          |                | 9786.600MWh    |       |          |
|     | (<br>2t)        | 28.00    | t·km           |                | 2024  |          |
|     |                 |          |                |                | ( 2t) |          |
|     | (<br>2t)        | 756.00   | t·km           |                |       |          |
|     |                 | 55.00    | t·km           |                |       |          |

|  | GHG  |       |  |            |      |                    |      |
|--|------|-------|--|------------|------|--------------------|------|
|  | (2t) |       |  |            |      |                    |      |
|  |      |       |  | 2465.00    | t·km |                    |      |
|  |      |       |  | 260.00     | t·km |                    |      |
|  |      |       |  | 420.00     | t·km |                    |      |
|  |      |       |  | 125.00     | t·km |                    |      |
|  |      |       |  | 200.00     | t·km |                    |      |
|  |      | (10t) |  | 7560000.00 | t·km | 2024               |      |
|  |      |       |  | 72000.00   | .    | 2024<br>72000.00   | 2024 |
|  |      |       |  | 1320000.00 | .    | 2024<br>1320000.00 | 2024 |

|  | GHG |       |           |                   |      |
|--|-----|-------|-----------|-------------------|------|
|  |     |       | 262800.00 | 2024<br>262800.00 | 2024 |
|  |     | 28    | t         |                   | 2024 |
|  |     | 756   | t         |                   | 2024 |
|  |     | 23905 |           |                   | 2024 |
|  |     | 493   | t         |                   | 2024 |
|  |     | 260   | t         |                   | 2024 |
|  |     | 420   | t         |                   | 2024 |
|  |     | 125   | t         |                   | 2024 |
|  |     | 40    | t         |                   | 2024 |
|  |     | 1.311 | t         |                   | 2024 |

3.3.2

2006 IPCC

2019

2023

GBT 2589-2020

2022

2024

33

CPCD

3-5

|      |   |  |  |  |
|------|---|--|--|--|
|      |   |  |  |  |
|      | CO <sub>2</sub> CH <sub>4</sub><br>N <sub>2</sub> O | GBT 2589-2020<br>2006 IPCC<br>2019<br>2.2                    | 38931.00kJm <sup>3</sup><br>56100kgCO <sub>2</sub> /TJ<br>1.0 kgCH <sub>4</sub> /TJ<br>0.1 kgN <sub>2</sub> O/TJ |  |
|      | CO <sub>2</sub> CH <sub>4</sub><br>N <sub>2</sub> O | GBT 2589-2020<br>2006 IPCC<br>2019<br>3.2.1&<br>3.2.2<br>2.2 | 43070 kJ/kg<br>69300kgCO <sub>2</sub> /TJ<br>25kgCH <sub>4</sub> /TJ<br>8kgN <sub>2</sub> O/TJ                   |  |
| HFCs | HFCs  | 1  | 1.000kgHFCs/Kg   |  |
|      | CH <sub>4</sub>                                     | COD<br>COD   | 0.010206<br>kgCH <sub>4</sub> / .  |  |

|        |                 |   |                                |                            |
|--------|-----------------|---|--------------------------------|----------------------------|
|        |                 | <p>325mg/L</p> <p>BOD/COD=0.43 BDO</p> <p>139.75mg/L</p> <p>179 / *d</p> <p>0.85 BOD</p> <p>=139.75*179*0.85/1000=</p> <p>21.2630g/ *d</p> <p>IPCC2019 6.3</p> <p>0.6kgCH<sub>4</sub>/kgBOD</p> <p>MCF 0.8</p> <p>=0.6*0.8*21.2630/1000=0.01020</p> <p>6kgCH<sub>4</sub>/</p> |                                |                            |
|        | CO <sub>2</sub> | <p>2022</p> <p>2024 33</p>  | 0.5366                         | tCO <sub>2</sub> /MWh      |
| ( 2t)  | CO <sub>2</sub> | CPCD  | 0.286kgCO <sub>2</sub> e/(t·km | )                          |
| ( 2t)  | CO <sub>2</sub> | CPCD  | 0.334kgCO <sub>2</sub> e/(t·km | )                          |
| ( 8t)  | CO <sub>2</sub> | CPCD  | 0.115kgCO <sub>2</sub> e/(t·km | )                          |
| ( 10t) | CO <sub>2</sub> | CPCD  | 0.162kgCO <sub>2</sub> e/(t·km | )                          |
|        | CO <sub>2</sub> | CPCD  | 0.0555                         | kgCO <sub>2</sub> e/(t·km) |

|  |                 |      |                                       |
|--|-----------------|------|---------------------------------------|
|  | CO <sub>2</sub> | CPCD | 0.1667<br>kgCO <sub>2</sub> e/(t·km)  |
|  | CO <sub>2</sub> | CPCD | 0.16496<br>kgCO <sub>2</sub> e/(t·km) |
|  | CO <sub>2</sub> | CPCD | 1.370 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 6.800 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 0.0376 tCO <sub>2</sub> /             |
|  | CO <sub>2</sub> | CPCD | 5.410 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 4.030 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 4.030 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 4.030 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 4.030 tCO <sub>2</sub> /t             |
|  | CO <sub>2</sub> | CPCD | 0.189 tCO <sub>2</sub> /t             |

### 3.3.3

IPCC

3-6

|                 | GWP |
|-----------------|-----|
| CO <sub>2</sub> | 1   |
| CH <sub>4</sub> |     |

3-7

| GHG |  |  |        | tCO <sub>2</sub>    |
|-----|--|--|--------|---------------------|
|     |  |  | 2.0761 | m <sup>3</sup> 4.53 |
|     |  |  | 4.87   | t 15.15             |

| GHG |  |       |  |           |       | tCO <sub>2</sub> |      |
|-----|--|-------|--|-----------|-------|------------------|------|
|     |  |       |  | 262800.00 | .     | 43.35            |      |
|     |  |       |  | 28        | t     | 38.36            |      |
|     |  |       |  | 756       | t     | 5140.80          |      |
|     |  |       |  | 23,905    |       | 8988.15          |      |
|     |  |       |  | 493       | t     | 2667.13          |      |
|     |  |       |  | 260       | t     | 1047.80          |      |
|     |  |       |  | 420       | t     | 1692.60          |      |
|     |  |       |  | 125       | t     | 503.75           |      |
|     |  |       |  | 40        | t     | 161.20           |      |
|     |  |       |  |           | 1.311 | t                | 0.25 |
|     |  | ( 2t) |  |           | 47.69 | t·km             | 0.00 |
|     |  | ( 8t) |  |           | 50.87 | t·km             | 0.01 |

GHG

3-8

|                        |        |         |         |          |      |      | (tCO <sub>2</sub> e/a) |
|------------------------|--------|---------|---------|----------|------|------|------------------------|
| CO <sub>2</sub>        | 19.07  | 5251.49 | 1493.55 | 20240.05 | 0.00 | 0.00 | 27004.16               |
| CH <sub>4</sub>        | 15.25  | 0.00    | 0.00    | 0.00     | 0.00 | 0.00 | 15.25                  |
| N <sub>2</sub> O       | 0.46   | 0.00    | 0.00    | 0.00     | 0.00 | 0.00 | 0.46                   |
| HFCs                   | 432.00 | 0.00    | 0.00    | 0.00     | 0.00 | 0.00 | 432.00                 |
|                        | 466.78 | 5251.49 | 1493.55 | 20240.05 | 0.00 | 0.00 | 27451.87               |
| (tCO <sub>2</sub> e/年) |        |         |         |          |      |      |                        |

3.3.5



4

4.0      3.0      5.0      5.0      4.0  
 4.0      3.0      3.0      2.0      2.0

3.143

3-12

3-12

|    |  |              |   |   |      |        |        |
|----|--|--------------|---|---|------|--------|--------|
|    |  |              |   |   |      |        |        |
| 1  |  | 6            | 2 | 3 | 3.67 | 0.02%  | 0.0006 |
| 2  |  | 3            | 2 | 6 | 3.67 | 0.06%  | 0.0020 |
| 3  |  | 3            | 6 | 6 | 5.00 | 1.57%  | 0.0787 |
| 4  |  | 1            | 3 | 1 | 1.67 | 0.06%  | 0.0009 |
| 6  |  | 6            | 3 | 6 | 5.00 | 19.13% | 0.9565 |
| 7  |  | 3            | 2 | 3 | 2.67 | 0.01%  | 0.0001 |
| 8  |  | 3            | 2 | 3 | 2.67 | 4.46%  | 0.1190 |
| 9  |  | 1            | 2 | 3 | 2.00 | 0.97%  | 0.0195 |
| 10 |  | 3            | 2 | 3 | 2.67 | 73.73% | 1.9661 |
| 11 |  | 3            | 2 | 3 | 2.67 | 0.00%  | 0.0000 |
|    |  | <b>3.143</b> |   |   |      |        |        |
|    |  |              |   |   |      |        |        |

### 3.3.6

2024 27451.87tCO<sub>2</sub>e  
27451.87tCO<sub>2</sub>e 0

### 3.4

ISO 14064-1

2018 ISO 14064-3 2019

a)

GHG

b)

GHG

c)

d)

e)2024

### 3.5 GHG

GHG

a)

5%

b)

GHG

GHG

6) 2024 年 1 月 1 日起实施  
c)

d)

e)

2024

4

1  \_\_\_\_\_

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ISO 14064-1 2018

3

4 GHG

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6 GHG GH24

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1

|     |  |   |   |   |
|-----|--|---|---|---|
|     |  | / | / | / |
| NC1 |  |   |   |   |

2

|     |        |
|-----|--------|
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| 1.  |        |
| 2.  |        |
| 3.  |        |
| 4.  |        |
| 5.  | 24 12  |
| 6.  | 24 12  |
| 7.  |        |
| 8.  |        |
| 9.  |        |
| 10. |        |
| 11. |        |
| 12. |        |
| 13. |        |
| 14. |        |
| 15. | 2024 / |
| 16. | 2024 / |
| 17. | 2024   |
| 18. |        |
| 19. |        |