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<?xml version="1.0" encoding="UTF-8"?>
<!-- 本案例文件僅含力積電永續報告部分內容，由屏大周國華老師研究團隊成員蘇佳成編製 -->
<xbrli:xbrl xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance" xsi:schemaLocation=
"http://xbrl.org/2006/xbrldi http://www.xbrl.org/2006/xbrldi-2006.xsd"
xmlns:ifrs_sds_entry_point="
https://xbrl.ifrs.org/taxonomy/2022-05-25/ifrs_sds/ifrs_sds_entry_point"
xmlns:rol_ifrs_s1_2022-05-25="
https://xbrl.ifrs.org/role/ifrs_sds/rol_ifrs_s1_2022-05-25" xmlns:gen="
http://xbrl.org/2008/generic" xmlns:rol_dim="
https://xbrl.ifrs.org/role/ifrs_sds/dimensions_2022-05-25" xmlns:ref="
http://www.xbrl.org/2006/ref" xmlns:xbrldt="http://xbrl.org/2005/xbrldt"
xmlns:rol_ifrs_s2_2022-05-25="
https://xbrl.ifrs.org/role/ifrs_sds/rol_ifrs_s2_2022-05-25" xmlns:xl="
http://www.xbrl.org/2003/XLink" xmlns:ifrs-sds="
https://xbrl.ifrs.org/taxonomy/2022-05-25/ifrs-sds" xmlns:utr="
http://www.xbrl.org/2009/utr" xmlns:link="http://www.xbrl.org/2003/linkbase"
xmlns:enum2="http://xbrl.org/2020/extensible-enumerations-2.0" xmlns:xlink="
http://www.w3.org/1999/xlink" xmlns:rol_im_1_2022-05-25="
https://xbrl.ifrs.org/role/ifrs_sds/rol_im_1_2022-05-25" xmlns:dtr-types_2="
http://www.xbrl.org/dtr/type/2022-03-31" xmlns:dtr-types="
http://www.xbrl.org/dtr/type/2020-01-21" xmlns:iso4217="
http://www.xbrl.org/2003/iso4217" xmlns:reference="http://xbrl.org/2008/reference"
xmlns:xbrldi="http://xbrl.org/2006/xbrldi" xmlns:label="http://xbrl.org/2008/label"
xmlns:xbrli="http://www.xbrl.org/2003/instance">
  <link:schemaRef xlink:type="simple" xlink:href=
  "../IFRSSDT_2022-05-25/ifrs_sds_entry_point_2022-05-25.xsd"/>
  <xbrli:context id="From20210101to20211231">
    <xbrli:entity>
      <xbrli:identifier scheme="https://www.twse.com.tw">6770</xbrli:identifier>
    </xbrli:entity>
    <xbrli:period>
      <xbrli:startDate>2021-01-01</xbrli:startDate>
      <xbrli:endDate>2021-12-31</xbrli:endDate>
    </xbrli:period>
  </xbrli:context>
  <xbrli:context id="Context_Duration_PerflourinatedCarbonsMember">
    <xbrli:entity>
      <xbrli:identifier scheme="https://www.twse.com.tw">6770</xbrli:identifier>
    </xbrli:entity>
    <xbrli:period>
      <xbrli:startDate>2021-01-01</xbrli:startDate>
      <xbrli:endDate>2021-12-31</xbrli:endDate>
    </xbrli:period>
    <xbrli:scenario>
      <xbrldi:explicitMember dimension="ifrs-sds:PollutantAxis">
      ifrs-sds:PerflourinatedCarbonsMember</xbrldi:explicitMember>
    </xbrli:scenario>
  </xbrli:context>
  <xbrli:context id="Context_Duration_GridElectricityMember">
    <xbrli:entity>
      <xbrli:identifier scheme="https://www.twse.com.tw">6770</xbrli:identifier>
    </xbrli:entity>
    <xbrli:period>
      <xbrli:startDate>2021-01-01</xbrli:startDate>
      <xbrli:endDate>2021-12-31</xbrli:endDate>
    </xbrli:period>
    <xbrli:scenario>
      <xbrldi:explicitMember dimension="ifrs-sds:EnergySourceAxis">
      ifrs-sds:GridElectricityMember</xbrldi:explicitMember>
    </xbrli:scenario>
  </xbrli:context>
  <xbrli:context id=
  "Context_Duration_ProductsContainingIEC62474DeclarableSubstancesMember">
    <xbrli:entity>
      <xbrli:identifier scheme="https://www.twse.com.tw">6770</xbrli:identifier>
    </xbrli:entity>
    <xbrli:period>
      <xbrli:startDate>2021-01-01</xbrli:startDate>
      <xbrli:endDate>2021-12-31</xbrli:endDate>
    </xbrli:period>
    <xbrli:scenario>
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47          <xbrldi:explicitMember dimension="ifrs-sds:ProductTypeAxis">
            ifrs-sds:ProductsContainingIEC62474DeclarableSubstancesMember
            </xbrldi:explicitMember>
48        </xbrli:scenario>
49      </xbrli:context>
50      <xbrli:context id="Context_Duration_RenewableEnergyMember">
51        <xbrli:entity>
52          <xbrli:identifier scheme="https://www.twse.com.tw">6770</xbrli:identifier>
53        </xbrli:entity>
54        <xbrli:period>
55          <xbrli:startDate>2021-01-01</xbrli:startDate>
56          <xbrli:endDate>2021-12-31</xbrli:endDate>
57        </xbrli:period>
58        <xbrli:scenario>
59          <xbrldi:explicitMember dimension="ifrs-sds:EnergySourceAxis">
            ifrs-sds:RenewableEnergyMember</xbrldi:explicitMember>
60        </xbrli:scenario>
61      </xbrli:context>
62      <xbrli:unit id="MetricTonnesOfCO2Equivalent">
63        <xbrli:measure>utr:tCO2e</xbrli:measure>
64      </xbrli:unit>
65      <xbrli:unit id="Gigajoule">
66        <xbrli:measure>utr:GJ</xbrli:measure>
67      </xbrli:unit>
68      <xbrli:unit id="Pure">
69        <xbrli:measure>xbrli:pure</xbrli:measure>
70      </xbrli:unit>
71      <xbrli:unit id="CubicMetre">
72        <xbrli:measure>utr:m3</xbrli:measure>
73      </xbrli:unit>
74      <xbrli:unit id="SquareMetre">
75        <xbrli:measure>utr:sqm</xbrli:measure>
76      </xbrli:unit>
77      <ifrs-sds:GrossScope1GreenhouseGasEmissions decimals="0" contextRef=
        "From20210101to20211231" unitRef="MetricTonnesOfCO2Equivalent">94996
        </ifrs-sds:GrossScope1GreenhouseGasEmissions>
78      <ifrs-sds:GrossScope1GreenhouseGasEmissions decimals="0" contextRef=
        "Context_Duration_PerflourinatedCarbonsMember" unitRef=
        "MetricTonnesOfCO2Equivalent">36161</ifrs-sds:GrossScope1GreenhouseGasEmissions>
79
        <ifrs-sds:Scope1EmissionsLongTermAndShortTermStrategyTargetsAndPerformanceAnalysisTe
        xtBlock contextRef="From20210101to20211231">策略:
80      導入 ISO 50001、ISO 14001 及 ISO 14064-1
        等國際管理系統，並制定「溫室氣體排放減量管理辦法」及「溫室氣體排放盤查及驗證作業細則」
        進行管理。
81      目標:
82       - 短期: 符合能源大用戶節電目標管理規劃，延續節能 1% 目標管理，目標削減溫室氣體 1%
83       - 中期(2015年為基準): 單位晶圓面積溫室氣體直接排放量減少 10
         %；製程含氟化物排放削減率達 85%
84       - 長期(2015年為基準): 單位晶圓面積溫室氣體直接排放量減少15%；含氟累計削減量達 500
         萬噸；製程含氟化物排放削減率達 90%
85      績效分析:
86       1. 單位產能 ( 溫室氣體 ) 排放量減量1% 以上
87       2. 8 吋廠順利導入 ISO 50001 能源管理系統並取得第三方驗證
        </ifrs-sds:Scope1EmissionsLongTermAndShortTermStrategyTargetsAndPerformanceAnalysisTe
        xtBlock>
88      <ifrs-sds:EnergyConsumed decimals="0" contextRef="From20210101to20211231" unitRef=
        "Gigajoule">4568329</ifrs-sds:EnergyConsumed>
89      <ifrs-sds:EnergyConsumedPercentage decimals="4" contextRef=
        "Context_Duration_GridElectricityMember" unitRef="Pure">0.8891
        </ifrs-sds:EnergyConsumedPercentage>
90      <ifrs-sds:WaterWithdrawn decimals="-3" contextRef="From20210101to20211231" unitRef=
        "CubicMetre">6030552</ifrs-sds:WaterWithdrawn>
91      <ifrs-sds:WaterConsumed decimals="-3" contextRef="From20210101to20211231" unitRef=
        "CubicMetre">1989704</ifrs-sds:WaterConsumed>
92      <ifrs-sds:ProductRevenuePercentage decimals="0" contextRef=
        "Context_Duration_ProductsContainingIEC62474DeclarableSubstancesMember" unitRef=
        "Pure">0</ifrs-sds:ProductRevenuePercentage>
93      <ifrs-sds:ProductionPercentageFromOwnedFacilities decimals="0" contextRef=
        "From20210101to20211231" unitRef="Pure">1
        </ifrs-sds:ProductionPercentageFromOwnedFacilities>
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94      <ifrs-sds:ProductionUnits decimals="4" contextRef="From20210101to20211231" unitRef=
        "SquareMetre">131661.0535</ifrs-sds:ProductionUnits>
95      <ifrs-sds:EnergyConsumedPercentage decimals="0" contextRef=
        "Context_Duration_RenewableEnergyMember" unitRef="Pure">0
        </ifrs-sds:EnergyConsumedPercentage>
96
        <ifrs-sds:EffortsToDesignForNewAndEmergingUsagePatternsWithRespectToEnergyEfficiency
        InAllProductCategoriesTextBlock contextRef="From20210101to20211231">速度提高 10
        倍功耗降低一半:
97    客戶採用 3D Interchip 封 裝技術，相對於 2.5D 封裝技術，速度約可提高 10
      倍，功耗降低一半。
      </ifrs-sds:EffortsToDesignForNewAndEmergingUsagePatternsWithRespectToEnergyEfficiencyI
      nAllProductCategoriesTextBlock>
98    </xbrli:xbrl>
99
```