

## SUMMARY OF THE XIANGTAN LOW-CARBON DEVELOPMENT PLAN, 2018-2030<sup>1</sup>

### 《湘潭市低碳发展规划（2018-2030）》

#### 主要思想

以国家低碳城市建设为抓手，以实现碳排放峰值任务倒逼低碳转型为目标，统筹经济社会发展和生态文明建设，着力推动城市生态优势转化为经济社会转型升级的发展优势。以加快传统产业转型升级、努力培育战略新兴产业、实现可持续发展为核心，以加快产业低碳化发展、转变能源发展方式、引导绿色低碳交通和建筑、增强城市碳汇能力为重点，打造“一带一部”的重要节点、作为核心增长极的重要支撑，率先实现老工业基地城市低碳转型和“伟人故里、大美湘潭”两型社会现代化建设目标。

1. **Main Idea:** Making this overall plan aims for economic and social development and ecological civilization construction. It focuses on accelerating the transformation and upgrading of traditional industries, striving to cultivate strategic emerging industries, and achieving sustainable development.

#### 主要目标

围绕国家和湖南省要求的碳排放强度和总量控制目标，力争到2028年实现湘潭市二氧化碳排放峰值，二氧化碳峰值为3429万吨，比基准情景消减了10.9%，相对减排量达到421万吨二氧化碳。排放总量较2015年水平控制增加幅度不超过326万吨，湘潭市全社会基本实现绿色、低碳、循环的发展方式，形成具有湘潭特色的老工业基地城市低碳发展模式，为全国低碳城市创建做出示范。

2. **Main Target:** The targets focus on total carbon emission and intensity control required by the People's Republic of China and the Hunan Province. We strive to achieve the peak of carbon dioxide emissions in Xiangtan by 2028. Xiangtan City has basically realized a green, low-carbon, and sustainable development mode, making a demonstration for national low-carbon city construction.

#### 主要路径

为保障低碳试点城市建设工作的顺利进行，未来湘潭市需实施五大低碳实施路径，即：一项目标——以碳排放达峰为目标；两大体系——构建减缓温室气体排放和适应气候变化两大体系；三个主体——政府、企业、公众三大主体共同发力；四大重点——以加快产业低碳化发展、转变能源利用方式、引导绿色低碳交通和建筑、增强城市碳汇能力为重点；以及五项支撑——以体制机制改革、低碳制度创新、低碳能力建设、低碳技术应用、

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<sup>1</sup> Note that this summary is not an official translation. It was provided by the Xiangtan program management office based on google translation.

低碳试点示范为支撑，全面推进低碳城市建设工作，提升全社会应对气候变化的能力。

3. **Main Path:** In order to ensure the smooth progress of low-carbon pilot cities construction, Xiangtan City will need to follow five paths in the future, namely: one goal - to achieve carbon emissions peaking, two major systems - to build greenhouse gas reduction and climate change adaptation systems, three main parts - government, enterprises and the public, four focuses - to accelerate low-carbon industries development, change the way of energy use, guide green and low-carbon transportation and buildings, and strengthen carbon sink capacity, and five pillars - to be supported by institutional reform, low-carbon system innovation, low-carbon capacity building, low-carbon technology application, and low-carbon pilot demonstration.

## 主要内容

一是优化空间发展布局。以“低碳”目标为导向，执行新版城市总体规划，明确主体功能区和城市空间布局，合理规划利用土地，推动节地紧凑的城市发展模式。严格按照湘潭市土地利用总体规划划定的“三界四区”，进一步保护湘潭绿心。深入开展国家新型城镇化综合试点，统筹推进城市双修、海绵城市、智慧城市、地下综合管廊、新一轮棚户区改造和城市管理标准化等各项工作，建立科学合理的空间开发秩序，形成“一心一区五片、两轴两通道”的城市空间结构。

4. **Main Content 1:** One is to optimize the space development layout. Guided by the "low-carbon" goal, the new version of the urban master plan will be implemented, the main functional areas and the urban spatial layout will be clarified, land use will be planned rationally, and a compact urban development model will be promoted. Strictly follow the "three borders and four areas" delineated in Xiangtan's overall land use plan to further protect Xiangtan's green heart. Deeply carry out the national new urbanization comprehensive pilot project, coordinate and promote the urban double repair, sponge city, smart city, underground comprehensive pipe corridor, a new round of shantytown renovation and urban management standardization, and establish a scientific and reasonable space development order to form a "One Heart, One Area, Five Pieces, Two Axis Two Channels" Urban Space Structure.

二是产业低碳化发展。以产业结构调整作为减排的最大驱动力，围绕建设“智造谷”“汽车城”“军工城”，推行市级领导担任“链长”、核心企业担任“盟长”、银行“行长”联系产业链和产业联盟的配套协作机制，推进全市产业结构优化、技术提升，着力控制高耗能行业发展，大力发展智能装备制造和汽车及零部件、新材料、食品医药、新一代技术等“1+4”现代工业体系，加快我市传统产业转型升级和新兴产业发展壮大的步伐。要实现2028年达峰目标，第三产业比重需提升至54%，战略性新兴产业比重提升至35%。

5. **Main Content 2:** Taking industrial restructuring as the biggest driving force for emission reduction, centering on the construction of "Intelligent Manufacturing Valley", "Automobile City" and "Military Industrial City", municipal leaders are promoted as "chain leaders", core enterprises as "counselors", and bank "governors" Connect with the supporting collaboration mechanism of the industrial chain and industrial alliances, promote the optimization of the city's industrial structure and technological upgrading, focus on controlling the development of high-energy-consuming industries, and vigorously develop smart equipment manufacturing and automobiles

and parts, new materials, food and medicine, new generation technologies, etc The 1 + 4 "modern industrial system accelerates the transformation and upgrading of our traditional industries and the development and growth of emerging industries. To achieve the peak goal of 2028, the proportion of the tertiary industry needs to be increased to 54%, and the proportion of strategic emerging industries to 35%.

三是转变能源发展方式。努力提高全市能源利用效率和提高非化石能源在总能源消费中的比重，首先，建设企业能源管理体系。以重点排放企业为主体，通过实施一套完整的标准、规范，在组织内建立起一个完整有效的形成文件的能源管理体系，提高企业能源管理水平，提高能源利用率。其次，发展可再生能源。因地制宜发展太阳能、风能、地热能等可再生能源，以实际行动增加非化石能源比重。推进中节能集中供能、雨湖产业新城、湘电风能、地热泵中央空调等项目建设。再次，推进企业碳资产管理。协助企业开展从碳排放管理体系建设、碳排放核算盘查、碳资产配置、交易撮合等一系列工作。要实现2028年达峰目标，煤炭消费占比需下降至56.4%，天然气消费占比提升至18.3%，可再生能源发电占比达到11.8%，本地非化石能源消费占比提升至10.5%。

6. **Main Content 3:** The third is to transform the way of energy development. Efforts should be made to improve the city's energy efficiency and increase the proportion of non-fossil energy in total energy consumption. First, build an enterprise energy management system. With key emission companies as the main body, through the implementation of a complete set of standards and specifications, a complete and effective documented energy management system is established within the organization to improve the enterprise's energy management level and energy utilization. Second, develop renewable energy. According to local conditions, develop renewable energy such as solar energy, wind energy, geothermal energy, etc., and increase the proportion of non-fossil energy with practical actions. Promote the construction of energy-saving centralized energy supply, rain lake industrial new city, Xiangdian wind energy, and geothermal pump central air conditioning. Again, promote corporate carbon asset management. Assist enterprises to carry out a series of work from carbon emission management system construction, carbon emission accounting, carbon asset allocation, and transaction matching. To achieve the peak goal of 2028, the proportion of coal consumption needs to decrease to 56.4%, the proportion of natural gas consumption to 18.3%, the proportion of renewable energy power generation to reach 11.8%, and the proportion of local non-fossil energy consumption to 10.5%.

四是引导低碳绿色交通和建筑。打造以常规公交为主体，以慢行交通为延伸的多模式、一体化的低碳公共交通体系，到2020年城市公共交通出行比例达到30%，线网总里程增加120%。促进交通用能清洁化，大力推广应用清洁能源车辆，引导新增纯电动公交和压缩天然气（CNG）出租车辆的使用，鼓励私人使用新能源汽车。加快推广绿色建筑，严格执行国家有关绿色建筑标准要求，加强市区绿色建筑推广，强化星级标识的创建，全面推行和落实新建建筑节能标准，推进装配式建筑发展和BIM技术应用。倡导绿色消费和生活方式，推进资源综合化利用，在硬件和软件层面同步建设低碳示范城市。要实现2028

年达峰目标，全市电动车比重要达26%，装配式建筑比例达51.7%。

7. **Main Content 4:** The fourth is to guide low-carbon green transportation and buildings. Build a multi-mode, integrated low-carbon public transportation system that takes conventional public transport as the main body and slow traffic as an extension. By 2020, the proportion of urban public transport trips will reach 30%, and the total mileage of the line network will increase by 120%. Promote the use of clean energy in transportation, vigorously promote the use of clean energy vehicles, guide the use of new pure electric buses and compressed natural gas (CNG) rental vehicles, and encourage private use of new energy vehicles. Accelerate the promotion of green buildings, strictly implement the relevant national green building standards, strengthen the promotion of green buildings in urban areas, strengthen the creation of star signs, comprehensively implement and implement new building energy efficiency standards, and promote the development of prefabricated buildings and the application of BIM technology. Promote green consumption and lifestyle, promote the comprehensive utilization of resources, and build a low-carbon demonstration city at the hardware and software level. To achieve the 2028 peak goal, the city's electric vehicle ratio will be 26% and the prefabricated construction ratio will be 51.7%.

五是增强城市碳汇能力。高质量深入推进国家森林城市建设工作，建立长效工作机制。按照“一核两谷三片十园多星多点”总体布局，开展森林网络与森林围城生态体系、产业体系、生态文化体系和城市森林管理体系建设。加快造林绿化步伐，加强防护林等林业重点生态工程建设，构筑生态安全屏障。到2028年，全市森林覆盖率需达到46.6%，城市建成区绿化覆盖率达45%。加强湿地和自然保护区建设，以水府庙库区湿地和沿湘江、涓水、涟水河流域湿地保护为重点，最大限度发挥湿地生态系统的碳汇功能。

8. **Main Content 5:** Fifth, strengthen the city's carbon sink capacity. Promote the construction of national forest cities with high quality and establish a long-term working mechanism. In accordance with the overall layout of "one core, two valleys, three areas, ten gardens, multiple stars and multiple points", carry out the construction of forest networks and forest siege ecosystems, industrial systems, ecological culture systems, and urban forest management systems. Accelerate the pace of afforestation and greening, strengthen the construction of key forestry ecological projects such as protective forests, and build an ecological security barrier. By 2028, the city's forest coverage rate will need to reach 46.6%, and the green coverage rate of urban built-up areas will reach 45%. Strengthen the construction of wetlands and nature reserves, focusing on the protection of wetlands in the Shuifumiao reservoir area and wetlands along the Xiangjiang, Juanshui, and Lianshui river basins to maximize the carbon sink function of the wetland ecosystem.

六是倡导绿色消费，推动资源综合利用。政府率先垂范，加大低碳宣传力度，全面普及低碳理念，推广低碳产品消费，倡导绿色低碳出行，推进垃圾分类回收利用，充分调动社会各领域力量，践行低碳生活的合力，为整个社会低碳转型奠定基础。按照低碳循环经济理念，应用先进技术与设备，加大大宗工业废渣的综合利用；通过自主创新等方式，加

大清洁低碳技术的研发和推广应用；积极推进城市生活垃圾的能源资源化利用，建设清洁高效的垃圾焚烧和填埋气发电工程，因地制宜发展各类沼气工程。

9. **Main Content 6:** Sixth, advocate green consumption and promote comprehensive utilization of resources. The government is the first to set an example, increase low-carbon propaganda, fully popularize low-carbon concepts, promote the consumption of low-carbon products, promote green and low-carbon travel, promote the recycling of waste sorting, fully mobilize the strength of all sectors of society, and practice the joint efforts of low-carbon life Lay the foundation for the low-carbon transformation of the entire society. According to the concept of low-carbon circular economy, apply advanced technology and equipment to increase the comprehensive utilization of large industrial waste residues; through independent innovation and other methods, increase the research and development, promotion and application of clean low-carbon technologies; actively promote the energy resource utilization of urban household waste Construction of clean and efficient garbage incineration and landfill gas power generation projects, and development of various biogas projects according to local conditions.

七是提升气候变化适应能力。加强目前适应气候变化能力的评估工作；构建适应气候变化的综合协调体系，形成在突发气象灾害下各部门有序有效应对的机制及能力。在气候变化影响的重点领域开展适应气候变化能力建设，着重从大气污染防治、城乡建设与基础设施、农林业、防灾减灾救灾等方面进一步提高适应气候变化的能力。

10. **Main Content 7:** Seventh, improve the adaptability of climate change. Strengthen the assessment of the current ability to adapt to climate change; build a comprehensive and coordinated system to adapt to climate change, and form an orderly and effective mechanism and ability for various departments to respond to sudden meteorological disasters. Carrying out climate change adaptation capacity building in key areas of climate change impact, focusing on further improving the ability to adapt to climate change in terms of air pollution prevention, urban and rural construction and infrastructure, agriculture and forestry, disaster prevention, mitigation and relief.

八是构建低碳发展支撑体系。在低碳城市建设进程中，构建功能高效、可操作的支撑体系。着力构建组织有序、职能明晰的领导体制和组织架构，形成领导小组统一监管、有关部门配合的综合协调体制。通过制度创新，推进包括多元化投入、低碳产品认证、低碳绩效考核、碳核查与交易制度等一系列低碳城市建设系列制度的探索与实施。构建温室气体排放数据管理平台，加强低碳发展的基础能力建设。多层次、多渠道开展示范和应用，开展低碳政府、低碳特色小镇、净零碳排放景区、低碳园区、低碳企业、低碳社区的试点示范，积极探索和总结低碳试点经验。

11. **Main Content 8:** Eighth, build a low-carbon development support system. In the process of low-carbon city construction, build a functionally efficient and operable support system. Efforts will be made to build an orderly and clearly defined leadership system and organizational structure, and to form a comprehensive coordination system with unified supervision by the leading group

and cooperation with relevant departments. Through institutional innovation, we will promote the exploration and implementation of a series of low-carbon city construction systems including diversified investment, low-carbon product certification, low-carbon performance assessment, carbon verification and trading systems. Build a greenhouse gas emission data management platform and strengthen the basic capacity building for low-carbon development. Multi-level and multi-channel demonstrations and applications, low-carbon government, low-carbon characteristic towns, net zero carbon emission scenic spots, low-carbon parks, low-carbon enterprises, and low-carbon communities, and actively explore and summarize low-carbon pilot experience .

九是加强保障措施。加强能力建设。依托高等院校、咨询机构和国际组织，围绕应对气候变化战略政策研究和技术研发，培育一批自主创新能力强、专业特长突出、在国内外有一定影响力的气候变化科研团队。加强平台建设。围绕低碳技术推广和应用，依托湘潭高新区，建设低碳技术专业孵化园。探索在产业园区、社区、商业区建设低碳技术应用示范项目，全面推动低碳产业发展。加大资金投入。争取设立市低碳发展专项引导资金，发挥资金促进低碳发展的引领作用。用好“低碳试点”品牌，引导民间资本投入低碳发展领域以及争取其他政策支持。加强国际合作。利用我市现有与亚洲开发银行、金砖国家新开发银行、美国可持续发展社区协会等机构的合作基础，深化学习国外低碳发展先进经验。积极主动参与和承办湖南省国际低碳技术发展论坛，展示湖南和湘潭的对外形象，提升国际知名度。加强跟踪考核和总结推广。确立科学合理的碳排放控制目标，并将减排任务分配到所辖行政区以及重点企业。

12. **Main Content 9:** Nine is to strengthen safeguards. Strengthen capacity building. Relying on universities, consulting institutions and international organizations, a group of climate change scientific research teams with strong independent innovation capabilities, outstanding professional expertise, and certain influence at home and abroad will be cultivated around strategic policy research and technology research and development in response to climate change. Strengthen platform construction. Focusing on the promotion and application of low-carbon technology, relying on Xiangtan High-tech Zone, we will build a low-carbon technology incubator. Explore the construction of demonstration projects for the application of low-carbon technologies in industrial parks, communities, and commercial areas, and comprehensively promote the development of low-carbon industries. Increase capital investment. Strive to establish a special low-carbon development guidance fund for the city, and play a leading role in promoting low-carbon development. Make good use of the "low-carbon pilot" brand, guide private capital to invest in low-carbon development, and strive for other policy support. Strengthen international cooperation. Use the existing cooperation foundation of the city with the Asian Development Bank, the BRICS New Development Bank, the American Sustainable Development Community Association and other institutions to deepen the study of advanced foreign low-carbon development experience. Actively participate in and undertake the Hunan Provincial International Low-Carbon Technology Development Forum, display the external image of Hunan and Xiangtan, and enhance international visibility. Strengthen follow-up assessment and summary promotion. Establish scientific and reasonable carbon emission control targets, and distribute emission reduction tasks to the administrative regions and key enterprises under their jurisdiction.