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经二路街道  
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经二路街道  
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渭工路社区



陕西普辉青年社会发展中心  
Puhui Youth Social Development Center



经二路街道  
新民路社区



## 人人参与环保 守护地球家园

Everyone participates in environmental protection  
and protects the earth home

资助单位：联合国开发计划署全球环境基金小额赠款计划

主办单位：宝鸡市渭滨区经二路街道办事处、新民路社区、渭工路社区

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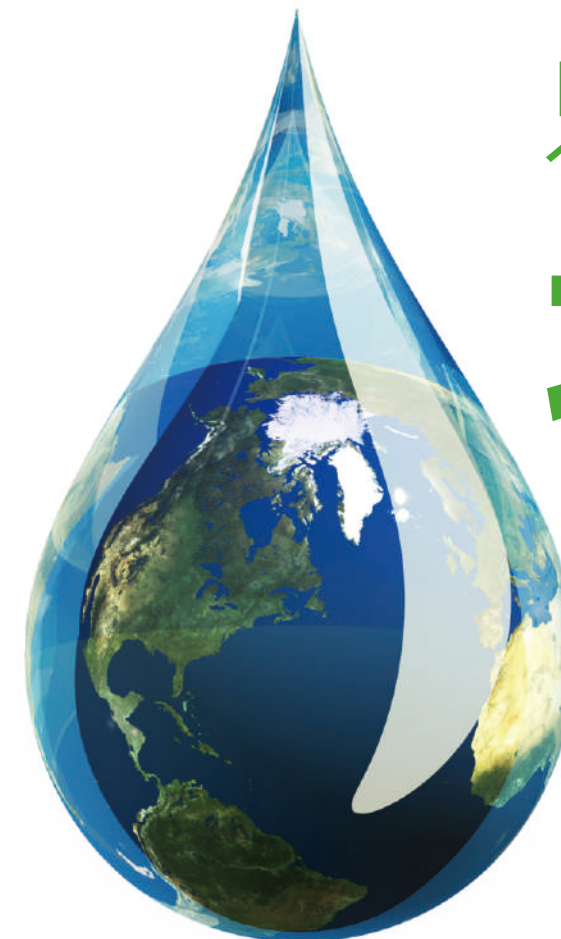
Sponsors: Jing'er Road Sub district Office, Xinmin Road Community, Weigong Road Community, Weibin District, Baoji City

Co-organizer: Community Social Organization Federation of Jing'er Road Sub district, Weibin District, Baoji City

Organizer: Shaanxi Puhui Youth and Social Development Center

# ONLY ONE EARTH

只有一个  
地球



## 陕西宝鸡经二路街道 绿色低碳社区项目知识手册

SHAANXI BAOJI JINGER ROAD RESIDENTIAL DISTRICT  
GREEN AND LOW-CARBON COMMUNITY PROJECT KNOWLEDGE MANUAL



PROTECT THE EARTH'S HOMELAND  
LOOK AT THE ACTION OF COMMUNITIES

保护地球家园  
看社区的行动

GREEN  
LOW  
CARBON

绿色 低碳 环保

指导单位：联合国开发计划署全球环境基金小额赠款计划

宝鸡市生态环境保护局 / 宝鸡市环境保护宣传教育信息中心

宝鸡市渭滨区发展和改革局

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Lucid waters and lush mountains  
are invaluable assets

## 绿水青山就是金山银山——习近平

“良好生态环境既是自然财富，也是经济财富，关系经济社会发展潜力和后劲。我们要加快形成绿色发展方式，促进经济发展和环境保护双赢，构建经济与环境协同共进的地球家园。”

"A good ecological environment is not only a natural wealth but also an economic wealth, which has a bearing on the potential and future strength of economic and social development. We should accelerate the formation of a green development mode, promote win-win economic development and environmental protection, and build a global home where economy and the environment advance together."

## 前言 PREFACE

气候变化、环境污染和生物多样性丧失是当今人类社会面临三大危机。尤其气候变化是当今人类面临的重大全球性挑战。近年来中国政府不仅积极应对气候变化，也积极参与联合国框架下的气候变化谈判。在第七十五届联合国大会一般性辩论上，中国提出了二氧化碳排放力争于2030年前达到峰值，努力争取2060年前实现碳中和”。

目前，社会各界在关注焦点集中在能源转型和产业调整方面，对于生活方式转变特别社区层面的碳中和行动，缺乏明确的愿景和路径。而社区碳排放是指社区因生活消耗能源所导致的碳排放，包括化石燃料燃烧、居民交通出行及外购电力和热力生产导致的碳排放。碳中和社区是在低碳社区的基础上再次进化，最理想的状态是在本社区内实现碳源（碳排放）和碳汇（碳吸收）平衡相抵；次理想状态是本社区内碳源和碳汇无法相抵，通过生态补偿或借助碳排放交易市场等方式，购买其他地区的碳汇达到平衡。据相关研究测算，中国人均社区碳排放量约为人均碳排放量总量的34%。社区内居民建筑、居民交通和公共设施的能耗占据社区碳排放份额最大。同时，社区治理水平也将影响到社区的减碳行动，以上海为例不断夯实街道在基层治理中的核心地位，培养市民自治共治能力列为社区治理的重要目标，这为社区民众就碳中和社区建设实现有效决策、一致行动提供有效支撑，对碳中和社区的建设大有裨益。

Climate change, environmental pollution and biodiversity loss are three major crises human society facing today. In particular, climate change is a major global challenge mankind facing today. In recent years, Government of China has not only actively responded to climate change, but also actively participated in climate change negotiations under the framework of the United Nations. At the general debate of the 75th United Nations General Assembly, China proposed that carbon dioxide emissions should reach the peak by 2030 and strive to achieve carbon neutrality by 2060. At present, all sectors of society focus on energy transformation and industrial adjustment, and lack a clear vision and path for carbon neutral action at the community level, especially for lifestyle change. Community carbon emissions refer to the carbon emissions caused by energy consumption in the community, including the carbon emissions caused by fossil fuel burning, residents' transportation, and purchased electricity and heat production. The carbon neutral community is re evolved on the basis of the low-carbon community. The ideal state is to balance the carbon source (carbon emission) and carbon sink (carbon absorption) within the community; The sub ideal state is if the carbon source and carbon sink in the community cannot be offset, the carbon sink in other regions can be purchased to achieve balance through ecological compensation or carbon emission trading market. According to relevant research, the per capita community carbon emissions in China are about 34% of the total per capita carbon emissions. The energy consumption of residential buildings, residential transportation and public facilities in the community accounts for the largest share of community carbon emissions. At the same time, the level of community governance will also affect the carbon reduction actions of communities. Taking Shanghai as an example, it is an important goal of community governance to constantly strengthen the core position of residential district in grass-roots governance, and to cultivate the ability of citizens to govern together autonomously. This will provide effective support for community people to make effective decisions and act in concert on carbon neutral community construction, which will greatly benefit the construction of carbon neutral communities.





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Get To Know Our Planet

# 认识我们的地球

地球是距离太阳最近的第三颗行星，也是目前已知的唯一孕育和支持生命的天体。地球表面的大约 29.2% 是由大陆和岛屿组成的陆地。剩余的 70.8% 被水覆盖，大部分被海洋、海湾和其他咸水体覆盖，也被湖泊、河流和其他淡水覆盖，它们共同构成了水圈，地球的大部分极地地区都被冰覆盖。地球外层分为几个刚性构造板块，它们在数百万年的时间里在地表迁移，而其内部仍然保持活跃，有一个固体铁内核、一个产生地球磁场的液体外核，以及一个驱动板块构造的对流地幔。

地球的大气主要由氮和氧组成。热带地区接收的太阳能多于极地地区，并通过大气和海洋环流重新分配。温室气体在调节地表温度方面也发挥着重要作用。一个地区的气候不仅由纬度决定，还由海拔和与该地区和海洋的接近程度等因素决定。热带气旋、雷暴、热浪等恶劣天气多发于广大地区，对生活影响较大。

地球是人类共同生活的家园，人类只有一个地球。

Earth is the third closet planet to the Sun and the only celestial body known to harbor and support life.About 29.2% of the Earth's surface is landmass consisting of continents and islands.The remaining 70.8% is covered by water, mostly by oceans, bays, and other salt water bodies, but also by lakes, rivers, and other fresh water, which makes up hydrosphere together , and most of the planet's polar regions are covered by ice.Earth's outer layer is divided into several rigid tectonic plates that migrate across the surface over millions of years while remaining active inside, with a solid iron inner core, a liquid outer core that generates Earth's magnetic field, and a driver plate Structural convective mantle.Earth's atmosphere is mainly composed of nitrogen and oxygen.Tropical regions receive more solar energy than polar regions and are redistributed through atmospheric and oceanic circulation.Greenhouse gases also play an important role in regulating surface temperature.The climate of a region is determined not only by latitude, but also by factors such as elevation and proximity to the region and the ocean.Severe weather such as tropical cyclones, thunderstorms, and heat waves occurs frequently in vast areas, which have a greater impact on life.The earth is the home where human beings live together, and there is only one earth for human beings.

The Causes Of Global Climate Change

## 全球气候变化的原因

### 全球气候变暖的原因

The causes of global climate change

#### 人类原因

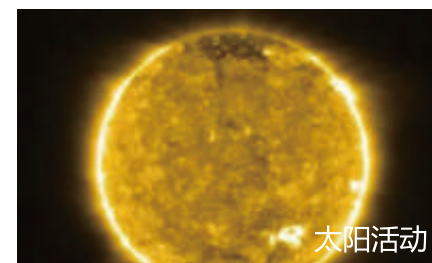
Human causes

#### 自然原因

Natural causes



火山活动



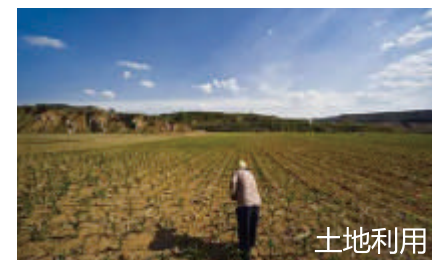
太阳活动



温室气体



气溶胶



土地利用



## Greenhouse Effect

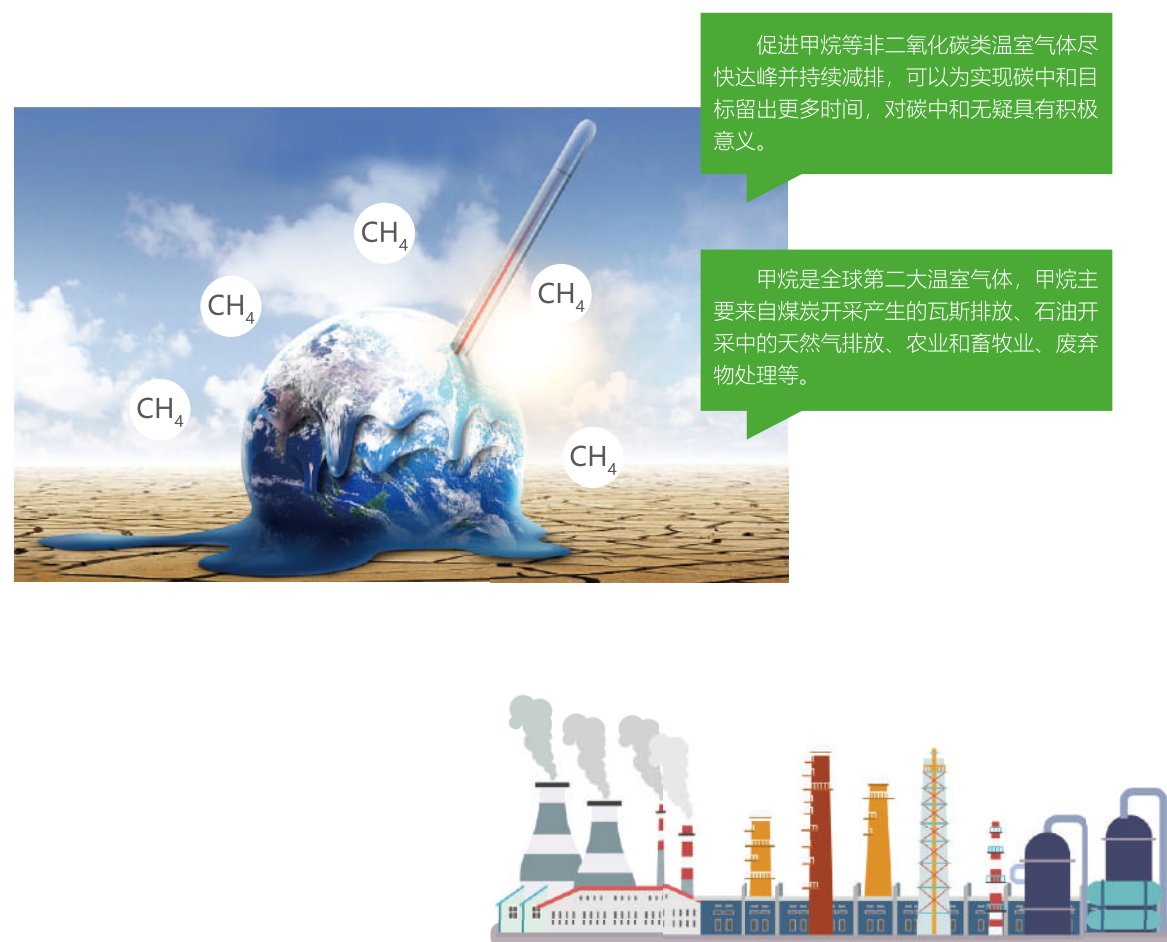
# 温室效应

控制温室气体的排放，可能会控制全球气候变暖，防止生态平衡破坏，农业变异，冰川融化等灾害发生。人们确实已经感受到全球气候变暖和异常，在这方面，科学家提出控制温室气体排放量也是防患于未然。

排放温室气体的人类活动包括：所有的化石能源燃烧活动排放二氧化碳。在化石能源中，煤含碳量最高，石油次之，天然气较低。

Controlling greenhouse gas emissions may control global warming, prevent ecological balance destruction, agricultural variation, glacier melting and other disasters. It is true that people have already felt the global warming and abnormality. In this regard, scientists have proposed that controlling greenhouse gas emissions is also a precaution.

Human activities that emit greenhouse gases include all fossil energy burning activities that emit carbon dioxide. Among fossil energy sources, coal has the highest carbon content, followed by oil and natural gas.



# 全球环境 气候变化 带来的影响

## GLOBAL ENVIRONMENTAL CLIMATE CHANGE IMPACT





How much do you know about non carbon dioxide greenhouse gases

## 非二氧化碳类温室气体知多少

甲烷(CH<sub>4</sub>)是仅次于二氧化碳的第二大温室气体，其排放量约占全球温室气体排放的20%，对全球变暖的贡献率约占四分之一。

我国也是甲烷排放大国，由于甲烷是短寿命温室气体，如果排放稳定对气候系统的长期影响就为零，而减排就相当于长寿命温室气体二氧化碳的负排放。可见，促进甲烷等非二氧化碳类温室气体尽快达峰并持续减排，可以为实现碳中和目标留出更多时间，对碳中和无疑具有积极意义。

Methane (CH<sub>4</sub>) is the second most potent greenhouse gas after carbon dioxide, accounting for about 20 percent of global greenhouse gas emissions and about a quarter of global warming. Our country is also a big emitter of methane. Since methane is a short-lived greenhouse gas, the long-term impact on the gas system is zero if emissions are stabilized, while emission reductions are equivalent to negative emissions of long-lived greenhouse gas carbon dioxide. It can be seen that promoting methane and other carbon dioxide greenhouse gases to peak as soon as possible and continue to reduce emissions can leave more time for the realization of carbon neutrality, which is undoubtedly positive for carbon neutrality.

有机废物的分解



天然源头



从化石燃料中提取



甲烷



动物的消化过程



稻田之中的细菌



生物物质缺氧加热或燃烧

What is the way for mankind to cope with climate change?

## 人类应对气候变化的途径是什么？

人类应对气候变化的途径主要是控制温室气体的排放、增加温室气体汇。将大气中温室气体的浓度稳定在防止气候系统受到危险的人为干扰的水平上，必须通过减缓气候变化的政策和措施来控制或减少温室气体的排放。提高工业生产部门的能源使用效率，降低单位产品能耗，提高建筑采暖等民用能源效率，提高交通部门的能源效率，减少森林植被的破坏，控制水田和垃圾填埋场排放甲烷等，由此来控制并减少二氧化碳等温室气体的排放量。

Approaches of human response to climate change are control greenhouse gas emissions and increase greenhouse gas sinks. To stabilize the concentration of greenhouse gases in the atmosphere at a level that prevents the climate system from being exposed to dangerous anthropogenic interference, the emission of greenhouse gases must be controlled or reduced through policies and measures to mitigate climate change. Improve the energy use efficiency of industrial production departments, reduce energy consumption per unit product, improve civil energy efficiency such as building heating, improve the energy efficiency of transportation departments, reduce the damage to forest vegetation, control the emission of methane from paddy fields and garbage landfills, and thus control and reduce the emission of carbon dioxide and other greenhouse gases.





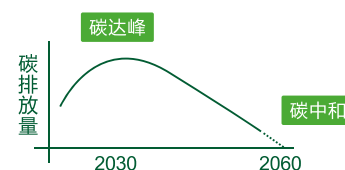
What is carbon peaking  
and carbon neutralization?

## 什么是碳达峰、碳中和？

### 碳达峰

指的是在某一个时点，二氧化碳的排放不再增长达到峰值，之后逐步回落。

It means that at a certain time point, the carbon dioxide emissions will no longer increase to the peak, and then gradually fall back.



### 碳中和

指的是在一定时间内，通过植树造林、节能减排等途径，抵消自身所产生的二氧化碳排放量，实现二氧化碳“零排放”。

It refers to offsetting the carbon dioxide emissions generated by itself through afforestation, energy conservation and emission reduction within a certain period of time, so as to achieve "zero emission" of carbon dioxide.



### 为什么要践行双碳目标？

联合国秘书长古特雷斯曾说：“疫情终将过去，但气候变化将伴随我们一生”。全球气候变化影响着每个人，应对气候变化不仅需要政府和企业行动起来，也需要消费者在衣食住行用等日常生活的各个环节发现减排潜力，行动起来，为实现碳达峰、碳中和目标贡献一分力量。

UN Secretary General Guterres once said: "The epidemic will eventually pass, but climate change will accompany us all our lives". Global climate change affects everyone. Addressing climate change requires not only governments and enterprises to take action, but also consumers to find emission reduction potential in all aspects of their daily lives, such as food, clothing, housing, transportation, etc. Let's take action and contribute our share to achieving the goal of carbon peak and carbon neutrality.



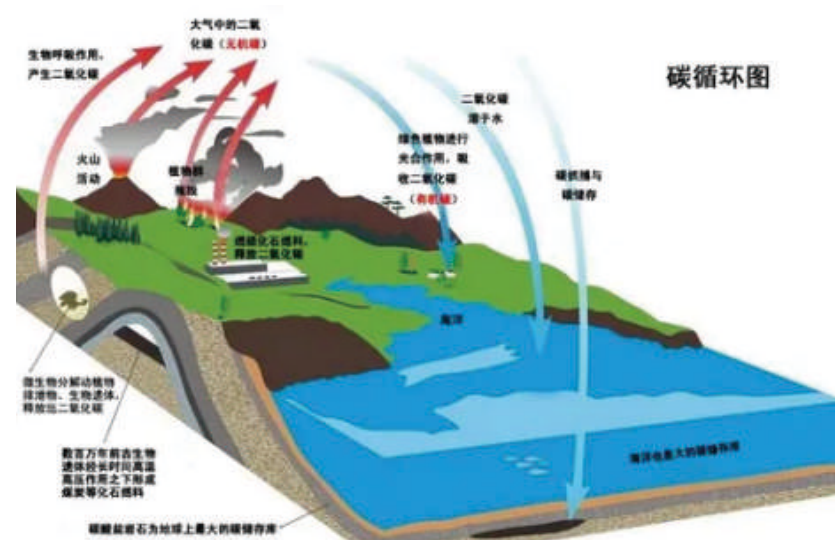
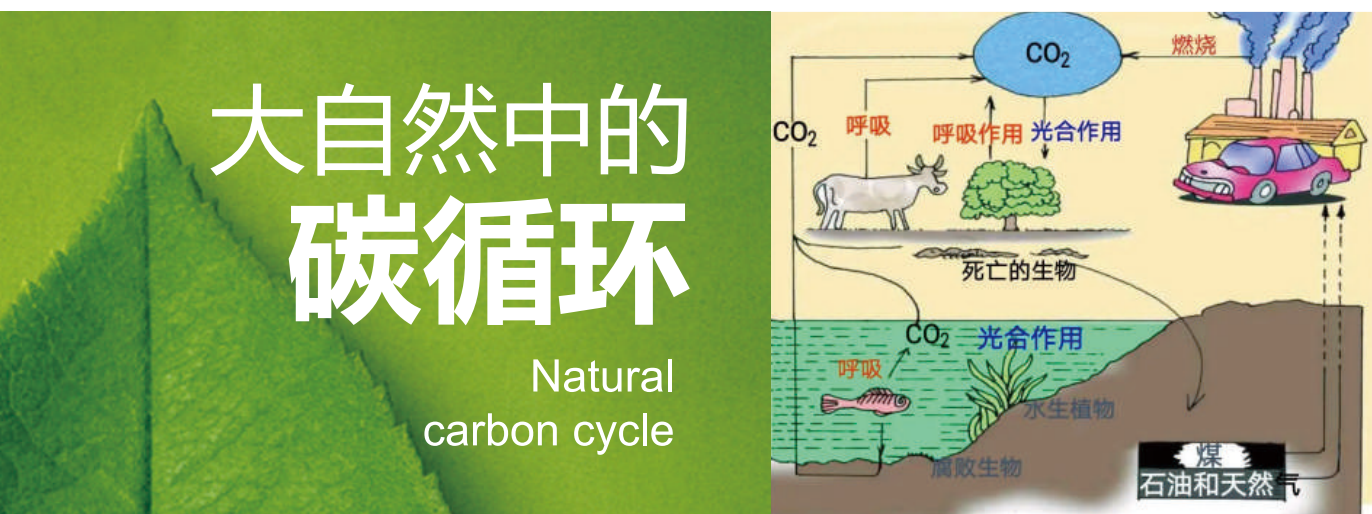


How does carbon cycle on the earth?

## 地球上的碳是怎样循环的？

地球上的碳循环主要表现为自然生态系统的绿色植物从空气中吸收二氧化碳，经光合作用转化为碳水化合物并释放出氧气，同时又通过生物地球化学循环过程及人类活动将二氧化碳释放到大气中。人类活动通过化石燃料燃烧向大气中释放了大量的二氧化碳，导致了全球气候系统的变暖。

The carbon cycle on the earth is mainly manifested in that green plants of natural ecosystems absorb carbon dioxide from the air, convert it into carbohydrates through photosynthesis and release oxygen, and release carbon dioxide into the atmosphere through biogeochemical cycle and human activities. Human activities release a large amount of carbon dioxide into the atmosphere through the burning of fossil fuels, leading to the global warming of the climate system.



How to calculate carbon emissions in life?

## 如何计算生活中的碳排放？

家庭日常居住中的直接能源消费包括基本的生活用能，如照明、烹饪、烧水、供暖等，电力、热力的生产和供应与煤炭开采使用、炼焦加工等过程息息相关。家庭的“碳排放”主要由用电量、用水量、用气量、耗油量四部分构成。我们可以通过使用碳排放公式将用量与相应的二氧化碳排放强度系数相乘，就可以计算自己家庭的碳排放。我国家庭碳排放的计算公式和强度系数如下：

The direct energy consumption in daily household includes basic domestic energy, such as lighting, cooking, water boiling, heating, etc. The production and supply of electricity and heat are closely related to coal mining, coking and processing. The "carbon emissions" of households are mainly composed of four parts: electricity consumption, water consumption, gas consumption and fuel consumption. We can calculate our family's carbon emissions by multiplying the consumption by the corresponding carbon dioxide emission intensity coefficient using the carbon emission formula. The calculation formula and intensity coefficient of household carbon emissions in China are as follows:

- 
**用电的碳排放**  
 度数 X 0.785 (公斤)
- 
**用水的碳排放**  
 吨数 X 0.91 (公斤)
- 
**用气的碳排放**  
 立方数 X 0.19 (公斤)

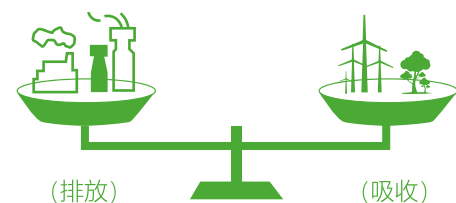




## Carbon Neutralization and Waste Classification

# 碳中和与垃圾分类

### 碳中和



指释放的二氧化碳（准确的说是温室气体）和吸收的二氧化碳相当，使大气重的二氧化碳不再增加。

气候变化是全球公认的全体人类所面临的长期的系统性风险，每个人，每个企业，必须要采取行动来进行改变。

### 垃圾分类的意义

- 提高公众积极应对气候变化的意识
- 有利于改善土壤肥力，减少化肥使用量
- 降低了垃圾焚烧二次污染控制难度
- 将有害垃圾分类出来，有利于垃圾的无害化处理
- 使最终进入卫生填埋的量大大减少
- 延长了填埋场的使用寿命
- 减少了原材料的需求，减少二氧化碳的排放

减少  
占地面积

减少  
环境污染

变废为宝

减少危害

## 垃圾分类对低碳社会建设的意义

垃圾分类指按一定规定或标准 将垃圾分类储存、分类投放和分类搬运，从而转变成公共资源的-系列活动的总称。分类的目的是提高垃圾的资源价值和经济价值，力争物尽其用。

通过垃圾分类管理，能够提高垃圾的资源价值和经济价值，还能有效改善城乡环境，实现碳减排，因此有利于我国生态文明和低碳社会建设水平的进一步提高。

Garbage classification refers to general term of series activities that transform garbage into public resources by classified storage, classified placing and classified handling according to certain regulations or standards. The purpose of classification is to improve resource value and economic value of garbage and strive to make best use of everything.

The classified management of garbage can improve resource value and economic value of garbage, effectively improve urban and rural environment, and achieve carbon emission reduction. Therefore, it is conducive to further improvement of China's ecological civilization and low-carbon society construction level.





## Achieving the Double Carbon Goal – Citizens

# 实现双碳目标-公民篇

绿色生活方式是指在生态文明观念下，人们在日常生活中，不可持续的生活方式，养成适度消费、节俭消费、低碳消费、安全消费的良好习惯，使绿色饮食、绿色出行、绿色居住成为人们的自觉行动。

日常生活我们可以:

Green lifestyle refers to that under the concept of ecological civilization, people change unsustainable lifestyle in their daily life, form good habits of moderate consumption, frugal consumption, low-carbon consumption and safe consumption, and make green diet, green travel and green living become people's conscious actions. In daily life, we can do:

- A 节能减排** Conserve Energy ,reduce Emissions  
不浪费衣物、粮食等生活资源；减少或不使用一次性物品；减少对环境破坏的个人行为。
- B 低碳生活** Low carbon life  
使用低效能电器、电器使用完及时切断电源、空调按冬/夏季规定使用。
- C 低碳出行** Low carbon travel  
减少开车，短距离选择步行或自行车；长距离选择公交、地铁/高铁等公共交通。
- D 垃圾分类** Refuse Classification  
按正确的垃圾分类进行垃圾投放，有害垃圾需按规定处理，不随意丢弃等。
- E 消费购物** Consumer shopping  
选择环保材料的物品，降低非环保物品对环境的破坏。
- F 宣传倡导** Advocacy  
自身做好绿色低碳环保的同时，多宣传、倡导和影响身边更多的人参与和践行低碳环保。

## Achieving the Double Carbon Goal – Women

# 实现双碳目标-女性篇

性别平等是社会文明进步的标尺，是2030年可持续发展议程的重要目标之一。在应对气候变化领域，实现碳达峰、碳中和目标，女性可以发挥不可或缺的重要作用。

在全球气候变化加剧的背景下，女性的社会角色意味着女性需要花费更多的劳动力去应对气候变化和极端灾害，更容易受到生计不稳定的影响。而女性作为维持家庭生计和保障生计安全的主要承担者，在日常生活中操心家庭的衣食住行用的方方面面，对于适应本地气候与环境条件有着更多的知识和理解。因此，女性不仅是气候变化影响的脆弱群体，也是应对气候变化的重要贡献者和受益者，应该赋予女性更多的参与权和决策权。

实现碳达峰、碳中和目标需要全社会共同努力，应推动性别与气候变化领域相关政策、法规的制定，从源头上鼓励和保障女性在气候变化领域参与、贡献、决策和管理的权利，提高女性参与气候行动的意识，通过宣传培训加强能力建设，使女性为实现碳达峰、碳中和目标做出更大贡献的同时争取更多的发展机会。



Gender equality is a yardstick of social civilization and progress, and one of the important goals of the 2030 Agenda for Sustainable Development. Women can play an indispensable role in coping with climate change and achieving the goal of carbon peaking and carbon neutralization.

In the context of the intensification of global climate change, women's social role means that women need to spend more labor to cope with climate change and extreme disasters, and are more vulnerable to the impact of livelihood instability. Women, as the main undertakers of maintaining family livelihood and ensuring livelihood security, handle all aspects of family's food, clothing, housing and transportation in daily life, and have more knowledge and understanding of adapting to local climate and environmental conditions. Therefore, women are not only vulnerable groups affected by climate change, but also important contributors and beneficiaries to climate change. Women should be given more rights to participate and make decisions.

Achieving the goal of carbon peaking and carbon neutralization requires the joint efforts of whole society. We should promote formulation of relevant policies and regulations in field of gender and climate change, encourage and protect women's rights to participate, contribute, make decisions and manage in field of climate change from the source, improve women's awareness of participating in climate action, and strengthen capacity-building through appropriate communication training to enable women to achieve carbon peaking While making greater contributions to the carbon neutral goal, strive for more development opportunities.



Achieving the Double Carbon Goal -- Teenagers

实现双碳目标--青少年篇

作为未来时代发展的主力军，青年群体应该积极采取行动参与
 到气候治理中，发出青年声音，助力我国的碳达峰、碳中和目标的
 早日实现。

青年人可以通过选修环境与可持续发展相关课程、关注气候变化
 相关新闻政策、参加论坛等方式主动涉猎碳排放与气候变化相关知
 识，主动获取气候变化如识，增加对我国碳达峰、碳中和目标的了
 解，并通过日常交流、网络社交等形式向身边的家人、朋友传播气
 候变化知识，提高全社会对碳排放的关注，推动形成节能减排的社
 会意识。

减少个人碳足迹，青年人应减少日常生活中产生的碳足迹，量入
 为出，适度消费，绿色消费；选择自行车、公共交通等绿色环保的
 出行方式；践行“光盘”理念，减少粮食浪费;主动进行生活垃圾分
 类；改善饮食结构，多吃素食等，以身作则并用积极行动影响他
 人，减少碳排放，发挥青年在气候行动中的重要作用。



As the main force of development in the coming era, youth groups
 should actively take action to participate in climate governance, make
 youth voices, and help China achieve its carbon peak and carbon neutral
 goals as soon as possible.

Young people can actively dabble in carbon emissions and climate
 change related knowledge by taking courses related to environment and
 sustainable development, paying attention to climate change related
 news policies, participating in forums and other ways, actively acquire
 knowledge about climate change, increase their understanding of China's
 carbon peak and carbon neutral goals, and spread climate change
 knowledge to their families and friends through daily exchanges, online
 social networking and other forms, The whole society should pay more
 attention to carbon emissions and promote the formation of social
 awareness of energy conservation and emission reduction.

To reduce personal carbon footprint, young people should reduce the
 carbon footprint generated in daily life, live within their income,
 consume moderately and consume green; Choose green and
 environment-friendly travel modes such as bicycles and public
 transportation; Practice the concept of "clear your plate " to reduce
 food waste: take the initiative to classify domestic waste; Improve the
 diet structure, eat more vegetarian food, set an example and influence
 others with positive actions, reduce carbon emissions, and play an
 important role in climate action for young people.

Low carbon clothing for green life

绿色生活之低碳穿衣

选择天然原料制作的衣服

尽量选择棉麻面料和淡色无印花的衣服。一件约250克重的纯棉T
 恤从原料制作开始算起到它被废弃，所消耗的能量大约是200千瓦
 时，相当于排放了约为其自身重量117 倍的二氧化碳(47千克)。

拒绝“喜新厌旧”

减少买衣服的频率，每人每年少买一件不必要的衣服，可减排二氧
 化碳 6.4 千克，如果全国有 2500 万人做到这一点，二氧化碳减排
 量将达到 16 万吨。

旧衣回收转增，妥善处理

最大限度利用旧衣物，在互联网平台进行二手转卖或在社区进行爱
 心捐赠，将其转赠给需要的人，形成衣物再利用。

合理洗衣除湿

降低洗衣频率，采用集中洗涤的方式，用手洗代替机洗，尽量使用
 天然的低泡沫型洗衣用品，少用含磷洗衣粉，自然晾干可减少水电
 浪费。全国 5000 万家庭，每月一次手洗代替机洗，可减排二氧化
 碳 1.8 亿吨。

Choosing clothes made of natural materials

Try to choose cotton and linen fabrics and light colored clothes
 without printing. A 250g pure cotton T-shirt has consumed about 200
 kilowatt hours of energy since it was made from raw materials until it
 was abandoned, which is equivalent to 117 times of its own weight of
 carbon dioxide (47 kg).

Refusing to "love the new and hate the old"

Reduce the frequency of buying clothes. Each person will buy less
 unnecessary clothes every year, which can reduce 6.4 kg of carbon
 dioxide emissions. If 25 million people across the country do this,
 160000 tons of carbon dioxide emissions will be reduced.

Recycling and increasing old clothes ,then disposing them properly

Make the best use of old clothes, resell them on the Internet platform
 or donate them to the community, and then give them to the people in
 need to form clothes reuse.

Washing and dehumidifying properly

Reduce the frequency of laundry, use centralized washing, use hand
 washing instead of machine washing, try to use natural low foam type
 laundry products, use less phosphorus containing laundry powder, and
 naturally dry can reduce water and electricity waste. 50 million
 households nationwide can reduce carbon dioxide by 180 million tons
 by hand washing once a month instead of machine washing.



Low carbon diet for green life

绿色生活之低碳饮食

据联合国粮农组织的计算，生产1千克的牛肉，需要10千克的谷物;生产1千克的猪肉，需要4千克~5.5 千克的谷物;生产1千克的鸡、鸭肉，需要 2.1千克~3千克的谷物。同时，生产1千克的牛肉相当于排放 36.4 千克的二氧化碳，生产过程中使用的化学肥料相当于释放340克二氧化硫和59克的磷酸盐，耗费1.69亿焦耳(相当于470度电)的能量，足以点亮1个100瓦的灯泡 20天。



选择当地食材，可以减少食材运输过程中排放的二氧化碳，节约了储存阶段消耗的水、电资源。



少吃肉类，多吃果蔬类和谷类，选择当季水果和蔬菜。



减少纸杯、木筷的使用，尽量少喝袋装茶叶和咖啡，拒绝“一次性发泡塑料餐具”的使用，尽量使用可反复使用的餐具。



外出就餐时，应根据人员情况点菜。用餐结束后，将吃不完的饭菜打包回家，避免食物浪费。



少喝瓶装水，多喝白开水，减少一次性塑料瓶的使用。

According to the calculation of the Food and Agriculture Organization of the United Nations, it takes 10 kg of grain to produce 1 kg of beef; The production of 1kg pork requires 4kg~5.5kg grains; The production of 1kg chicken and duck meat requires 2.1kg~3kg grains. At the same time, the production of 1kg beef is equivalent to 36.4kg carbon dioxide emissions. The chemical fertilizer used in the production process is equivalent to dry release of 340g sulfur dioxide and 59g phosphate, consuming 169 million joules (equivalent to 470 kilowatt hours of electricity) of energy, which is enough to light a 100 watt bulb for 20 days.

1. The selection of local food materials can reduce the carbon dioxide emissions during the transportation of food materials and save the water and electricity resources consumed in the storage phase.
2. Eat less meat, more fruits and vegetables and cereals, and choose fruits and vegetables in the season.
3. Reduce the use of paper cups and wooden chopsticks, try to drink less bagged tea and coffee, reject the use of "disposable foam plastic tableware", and try to use reusable tableware.
4. When dining out, you should order according to the situation of the personnel. After the meal, pack the leftovers home to avoid food waste.
5. Drink less bottled water and more plain water to reduce the use of disposable plastic bottles.

GREEN  
LIFE



Green life – low carbon residence

绿色生活之低碳居住

- 1、低碳装修：装修时浅色更低碳，以自然通风、采光为原则，最大限度地减少建材的使用，减少使用空调、电灯的时间。
- 2、多种植花草：在家里多种植一些花草，许多植物除了具有观赏性外还能起到消耗家里的二氧化碳、杀菌、吸尘等作用。
- 3、洗碗或洗菜时尽量避免细水长流，淘米水洗碗筷也能省下很多水，还能减少洗涤剂带来的污染。
- 4、节水洗漱：刷牙、洗脸、洗手、洗澡的时候不必一直开着水龙头。选择节水的马桶，双键马桶与传统单键马桶相比，用双键马桶每家每天至少节水一半。
- 5、垃圾分类投放：家庭垃圾分类的好处一是方便垃圾处理，减少处理过程中的碳排放；二是方便垃圾回收，有利于废物的循环利用。
- 6、少用塑料袋，出门带环保袋：外出购物的时候最好自己携带环保袋。塑料袋会带来白色污染，埋于土壤里，也会花费几百年的时间来降解。
- 7、家用电器可选择低能耗，节电节能，减少二氧化碳的排放。

1. Low carbon decoration: light color and low carbon shall be used for decoration. Based on the principle of natural ventilation and lighting, the use of building materials shall be minimized, and the time for using air conditioners and electric lights shall be reduced.
2. Cultivate more flowers and plants: plant more flowers and plants at home. Many plants can also consume carbon dioxide, sterilize, and vacuum in the home, in addition to being ornamental.
3. When washing dishes or vegetables, try to avoid the constant flow of water. Washing dishes with rice washing water can also save a lot of water and reduce the pollution caused by detergents.
4. Water saving washing: You don't need to keep the tap on when you brush your teeth, wash your face, wash your hands, and take a bath. Choose a water-saving toilet. Compared with the traditional single button toilet, each household with a double button toilet can save at least half of the water every day.
5. Garbage sorting: The first advantage of household garbage sorting is to facilitate garbage treatment and reduce carbon emissions in the treatment process; Second, it is convenient for garbage recycling, which is conducive to the recycling of waste.
6. Use less plastic bags and take environmental bags when going out: It's better to take environmental bags with you when you go out shopping. Plastic bags will bring white pollution, which will take hundreds of years to degrade if buried in the soil.
7. Household appliances can choose low energy consumption, energy saving and reduce carbon dioxide emissions.





Green life, low-carbon travel

# 绿色生活之低碳出行

我国交通出行相关石油消耗占全球石油总消费的64%，以及世界总二氧化碳排放量的23%。

### 01

步行或骑自行车，搭乘公共交通工具，是节约能源、减少碳排放的好方法。

### 02

养成低碳驾车习惯，出门前查阅地图，选择经济驾驶的路线；避免冷车启动和突然加速；选择合适的车速与档位；高速行驶时不要开窗；避免车辆超载。

### 03

买车时尽量选择新能源汽车，混合动力车约比普通汽车省油10%，而纯电力车几乎能减排100%，每周少开一天车，拼车出行，低碳环保，平均一辆车一年要减排约430千克二氧化碳。

### 04

购买汽车的时候应尽量选择小排量汽车，更节能、环保。

### 05

外出旅游多选择低碳方式，入住宾馆时，使用自己携带的洗漱用品，尽量少使用一次性用品，离开房间时关掉灯和空调等电器。

China's oil consumption related to transportation accounts for 64% of the world's total oil consumption and 23% of the world's total carbon dioxide emissions.

1. Walking or cycling, taking public transport, is a good way to save energy and reduce carbon emissions.
2. Develop the habit of low-carbon driving, consult the map before going out, and choose the economical driving route; Avoid cold start and sudden acceleration; Select appropriate vehicle speed and gear; Do not open the window when driving at high speed; Avoid overloading the vehicle.
3. When buying a car, try to choose new energy vehicles. Hybrid vehicles can save about 10% of the fuel compared with ordinary vehicles, while pure electric vehicles can almost reduce emissions by 100%. Driving one day less for the week, carpooling, low-carbon and environmentally friendly. On average, a car will reduce emissions by about 430 kg of carbon dioxide a year.
4. When buying cars, try to choose cars with small displacement to save energy and protect the environment.
5. Low carbon travel is preferred. When you stay in a hotel, you should use your own toiletries, try to use less disposable products, and turn off the lights, air conditioners and other electrical appliances when you leave the room.



Green life green office

## 绿色生活之绿色办公

● 通讯少用纸质用品，多用电子邮件、微信、QQ等即时通讯工具，省纸节能。

● 合理使用电脑，电脑显示屏设置合适的亮度；电脑不用时及时关闭显示器；使用完电脑后正常关机，拔下电源插头或关闭电源接线板上的开关。

● 传真机、复印机不用的时候关掉，传真机、复印机这类电器不用的时候就关掉。还应淘汰高耗能的计算机、打印机等用电设备，推广使用节电软件。

● 合理使用纸张，严格控制文件印刷数量，重视信封、复印纸再利用以及废纸回收利用。

● 下班前离开前提前半小时关空调，开中央空调制冷时，将室温调高1℃，可省电10%以上。

1. Use less paper products for communication and more instant messaging tools such as email, WeChat and QQ to save paper and energy.
2. The computer shall be used reasonably, and the computer display screen shall be set with appropriate brightness; Turn off the monitor when the computer is not in use; After using the computer, turn it off normally, unplug the power plug or turn off the switch on the power strip.
3. Turn off the fax machine and copier when they are not in use, and turn off the fax machine and copier when they are not in use. We should also eliminate high energy consuming computers, printers and other electrical equipment, and promote the use of power saving software.
4. Use paper reasonably, strictly control the number of documents to be printed, and attach importance to the reuse of envelopes, copy paper and waste paper.
5. Turn off the air conditioner half an hour before leaving before going off duty. When turning on the central air conditioner for refrigeration, increase the room temperature by 1 ℃, which can save more than 10% of electricity.



## Bottom-up community promotion

# 自下而上 社区推动

社区是社会的缩影，是国家社会治理、城市组织和行政管理的基本单元，社区也是实现可持续发展、绿色消费和生态环境保护，从理论到实践的重要载体。

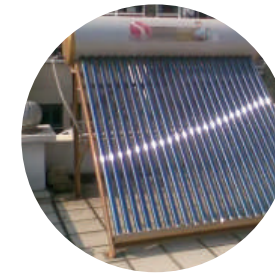
作为公民最基础的集体，应带头倡导环保低碳理念和行动鼓励，做好社区绿色碳环保宣传，营造绿色环保社区氛围，以促进居民环保意识和认知的提高。并通过鼓励和培育社区内的志愿组织和服务力量参与社区绿色可持续发展的行动。

在绿色低碳环保领域多学习探索与创新服务，多带头组织开展绿色环保服务活动，推动社区人人参与环保的行动和理念，为助力中国实现“碳达峰、碳中和”目标而贡献力量。

Community is the epitome of society and the basic unit of national social governance, urban organization and administration. Community is also an important carrier to achieve sustainable development, green consumption and ecological environment protection, from theory to practice.

As the most basic collective of citizens, we should take the lead in advocating the concept of environmental protection and low carbon and encourage action, do a good job in the publicity of green carbon and environmental protection in the community, and create a green community atmosphere to promote the improvement of environmental awareness and perception of residents. We should encourage and cultivate voluntary organizations and service forces in the community to participate in the action of green sustainable development in the community.

More learning, exploration and innovative services in the field of green and low-carbon environmental protection, more leadership in organizing green environmental protection service activities can promote community participation in environmental protection and contribute to help China achieve the goal of 'carbon peaking and carbon neutrality'.



清洁能源主要包括海洋能、太阳能、生物能、地热能、水能等。清洁能源指的是对环境友好的能源，意思为环保、排放少、污染程度小。现在对清洁能源的准确定义，是指对能源清洁、高效、系统化应用的技术体系。

国家绿色照明工程促进项目办公室专项调查显示，我国照明用电每年均在3000亿度以上，其中仅道路照明用电量就占三分之一。如果这三分之一的道路照明用太阳能照明替代的话，足以让我国向节能减排目标迈进一大步。

以社区为基本单元，安装太阳能路灯、太阳能充电设备等清洁能源系统，践行国家双碳战略目标。

Clean energy mainly includes ocean energy, solar energy, biological energy, geothermal energy, water energy, etc. Clean energy refers to environment-friendly energy, which means environmental protection, less emissions and less pollution. Now, the accurate definition of clean energy refers to the technical system of clean, efficient and systematic application of energy.

According to the special survey of the National Green Lighting Project Promotion Office, China's lighting power consumption is more than 300 billion kilowatt hours per year, of which road lighting alone accounts for one third. If one third of the road lighting is replaced by solar lighting, it will be enough to make China take a big step towards the goal of energy conservation and emission reduction.

With the community as the basic unit, installing solar street lamps, solar charging equipment and other clean energy systems can contribute to the implementation of the national dual carbon strategic goal.

Introduce clean energy to the community

# 清洁能源进社区







Promote green education and create a zero carbon community

## 推动绿色教育 缔造零碳社区

绿色社区是环保公众参与机制的基层、基点和基础，绿色社区的创建对建立完善环保公众参与机制具有举足轻重的作用。创建绿色社区的最主要目的是使公民能够认识和行使自己的环保权利和责任，通过政府与民间组织、公众的合作，把环境管理纳入社区管理，建立社区层面的公众参与机制，让环保走进每个人的生活，加强居民的环境意识和文明素质，推动大众对环保的参与。在建设绿色社区的过程中，通过各种活动，增强社区的凝聚力，创造出一种与环境友好、邻里亲密和睦相处的社区氛围。



Green community is the basic level, base point and foundation of public participation mechanism in environmental protection. The establishment of green community plays an important role in establishing and improving public participation mechanism in environmental protection. The main purpose of creating green communities is to enable citizens to understand and exercise their environmental rights and responsibilities, bring environmental management into community management through the cooperation between the government, non-governmental organizations and the public, establish a community level public participation mechanism, let environmental protection enter everyone's life, strengthen residents' environmental awareness and civilized quality, and promote public participation in environmental protection. In the process of building a green community, through various activities, the cohesion of the community will be enhanced to create a community atmosphere that is friendly to the environment and close and harmonious with neighbors.

Inherit green spirit and advocate low-carbon action

## 传承绿色精神 倡导低碳行动

我们共同努力 改善生存环境  
人人都是参与者和行动者一起行动助力国家为实现“碳达峰、碳中和”

双碳战略目标而努力



优先选乘  
公共交通



使用无纺布  
购物袋



纸张  
双面打印



使用节能灯泡



随手关闭电源



空调温度避免过高  
或过低



不使用  
一次性餐具



不浪费粮食

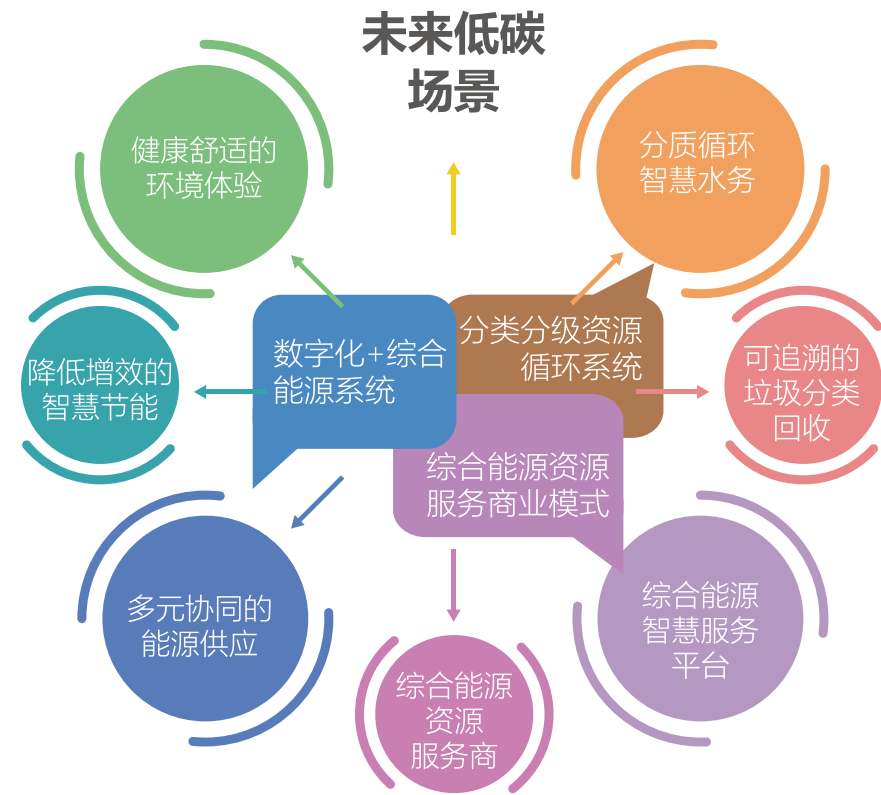




未来社区 可持续生计  
清洁能源 融合发展

未来社区 就是 以满足人民美好生活向往为根本目的的人民社区，  
是围绕社区全生活链服务需求，以人本化、生态化、数字化为价值导向，  
以未来 邻里、教育、健康、创业、建筑、交通、能源、物业和理等  
九大场景创新为引领的新型城市功能单元。

The future community is a people's community whose fundamental purpose is to meet people's aspirations for a better life,  
Focusing on the service demand of the whole life chain of community, and taking humanism, ecology and digitalization as the value orientation,  
Based on the future neighborhood, education, health, entrepreneurship, construction, transportation, energy, property management, etc  
New urban functional units led by nine scenes innovation.



FUTURE

FUTURE  
COMMUNITY



想象一下未来社区的低碳场景会是怎样的：幕墙采用“呼吸式”光伏，阳台和屋顶花园使用光伏玻璃，社区公园是光伏长廊，屋顶是光伏瓦，路边是光伏路灯。氢能和燃料电池等新技术也投入使用。居住的房屋，集中供暖供冷成为标配，告别空调和地暖，享受四季如春的环境体验。家家都是智能家居和家电，提供多元化供应套餐、差异化节能方案，大大降低能耗成本。雨水会回收利用，滴灌下凹式绿地花园，喷洒景观园林；厨余垃圾、大件垃圾、装修垃圾会分类投放。

Imagine the low carbon scenario of community in the future: the curtain wall uses "breathing" photovoltaic, the balcony and roof garden use photovoltaic glass, the community park is a photovoltaic corridor, the roof is photovoltaic tiles, and the roadside is photovoltaic street lamps. New technologies such as hydrogen energy and fuel cells have also been used. For residential houses, central heating and cooling have become the standard configuration. Say goodbye to air conditioning and floor heating, and enjoy the environmental experience of spring all the year round. Every home is a smart home and household appliance, providing diversified supply packages and differentiated energy conservation schemes, which greatly reduce energy consumption costs. Rainwater will be recycled, drip irrigate sunken green gardens, and spray landscape gardens; Kitchen waste, large pieces of waste and decoration waste will be put in categories.



## 实现碳中和目标

除了植树造林，未来实现碳中和也要依靠这些方法：

Achieve carbon neutral target

In addition to afforestation, realize carbon neutrality in the future

It also depends on these methods:



- 借助光伏、风电等技术实现清洁发电
- 用新工艺、新设备提高煤等传统能源的使用效率
- 技术加持能源结构转型
- 通过催化工艺，将二氧化碳转化为有用的产品和资源

- 1.Using photovoltaic, wind power and other technologies to realize clean power generation;
- 2.Using new technologies and equipments to improve the efficiency of coal and other traditional energy source;
- 3.Technologies support structural transformation of energy;
- 4.Through promoted catalyst process, carbon dioxide is converted into useful products and resources.

