



Establishment of TDK Environmental Action 2020

TDK Corporation
June 20, 2011

Regular Revision of TDK's Environmental Action Plans



- ◆ The TDK Group formulates medium- to long-term plans relating to the environment indicating specific targets and measures for realization of the principles of its Environment Charter.
⇒ Establishment and announcement of TDK Environmental Action Plans TDK Environmental Action 2020

○ **April 2011: 3rd environmental action plan**
Establishment of TDK Environmental Action 2020



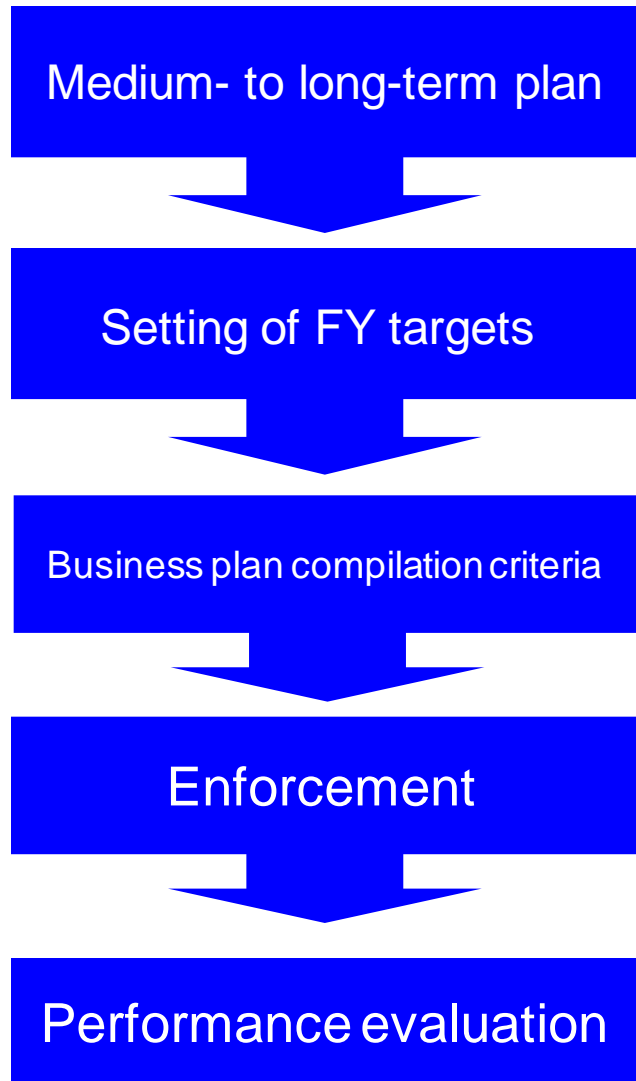
○ **April 2006: 2nd environmental action plan**
Establishment of TDK Environmental Action 2015



○ **April 2003: 1st environmental action plan**
Establishment of TDK Environmental Action 2010

※ Revise the plan within five-year intervals considering achievement status and social trends.

Position of TDK Environmental Activities in Management



- Set environment-related single-year targets extracted from the medium- to long-term plan, and reflect in the business plan
- Promote plans globally and aim to achieve targets
- Evaluate achievement of targets at the end of FY, and reflect to the business group performance evaluation



◆ Concept

Mission of the manufacturing industry
“to contribute to CO₂ reduction through products”



Product contribution
Quantify and visualize contributions to CO₂ reduction by products and aim for results exceeding CO₂ emissions in production activities.



Concept
Achievement of “TDK Carbon Neutrality”

- The previous environmental action plan is progressing well.
- Preventing global warming is one of the most important issues these days.
- A strong message from electronic components manufacturer is needed.

Concept of TDK Environmental Action 2020



◆ Transformation of TDK Environmental Action Plans

~2050

Environmental growth strategy

○ TDK Environmental Action 2020 (est. April 2011)

- ⇒ ① Quantification and visualization of product contributions
② Achievement of carbon neutrality

Toward an era of product differentiation by environmental performance

Environmental management practice

○ TDK Environmental Action 2015 (est. April 2006)

- ⇒ ① Globalization of environmental action
② Linkage to performance evaluation

From image formation to mainstay of management

Strengthening of EMS

○ TDK Environmental Action 2010 (est. April 2003)

- ⇒ ① Reduction of environmental risk, promotion of zero emissions
② Emphasis on domestic activities in Japan

Response to risk management/recycle-oriented society

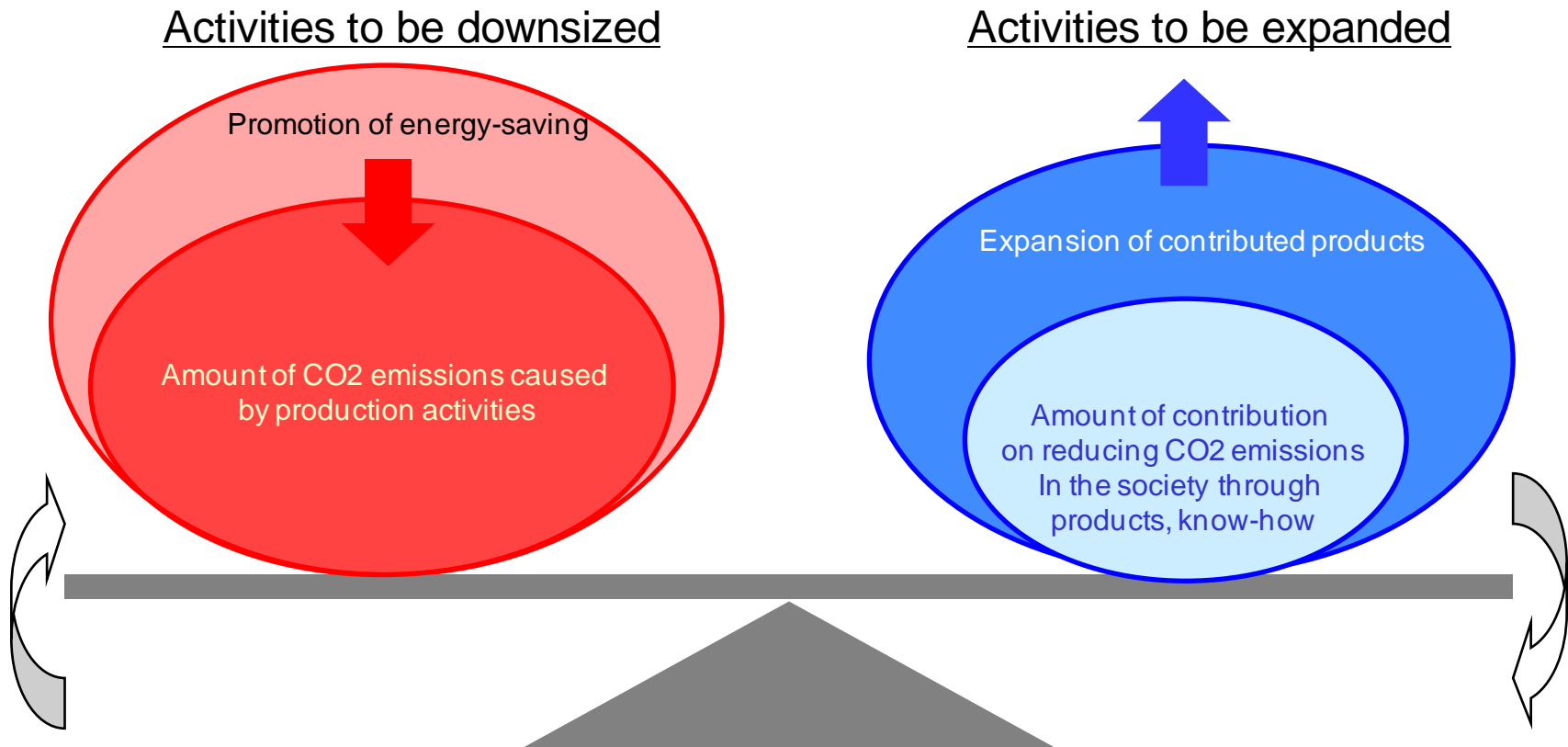
1990s

Concept of TDK Environmental Action 2020: Carbon Neutrality

- ◆ As well as reducing the amount of CO₂ emissions in production activities, TDK will increase its contribution to CO₂ reduction in society and households through products and know-how through the supply of electronic components, achieving a balance by the end of FY 2021. ⇒ Achievement of carbon neutrality!

End of FY 2021:

CO₂ emissions at production sites – product contribution for CO₂ reduction \leq ZERO





◆ The Challenge of Carbon Neutrality

- Miniaturization and higher performance of electronic components, in-house production of materials, and ensuring of high quality is required.
⇒ **Energy consumption is continually increased.**
 - The electronic components industry is an important base industry supporting the environmental contribution of final products.
⇒ **However, quantification and visualization of contributions of electronic components are very complex.**
 - On the other hand, the quantifying targets for product contributions will promote the new product development from an environmental perspective.
⇒ **Strengthening of base technologies, ensuring of growth potential is important.**
- ⇒ Although it is the toughest challenge that any of us have ever faced, we believe that achieving carbon neutrality will lead to an improvement in the corporate value in the future.

⇒ **TDK has established the 'TDK Environmental Action 2020', which is stated the achievement of carbon neutrality as a major essence, and will start to take actions from FY 2011.**

Overall Image of TDK Environmental Action 2020



TDK Carbon Neutrality

Environmental Burden

other targets for reducing environmental burden

material resources use

10k t

from FY2014 waste amount reduction index
↓
reset up global target for material utilize index

by FY2016, total waste: < 70k t (already achieved)

reduce >1% of previous FY levels

water resources use

10k m3

reduce >10% of FY2011 levels (reduce > 1000 k m3)

Actual CO2 emissions from production activities

10k t-CO2

100
reduce >1% of previous FY levels

↑

↑

↑

↑

111

FY

2021

III

↑

2016

>

↑

2014

>

↑

2013

↑

2012

Effective environmental contribution from products

10k t-CO2

100

← reflect

Mid-term target

←

set & announce target

developing

*direct contribution standard (preparing -> estimating)
*indirect contribution from allocation (participate in the organization)

CO2 Balance Sheet

Amount of CO2 emissions caused by production activities

Amount of contribution on reducing CO2 emissions in society through the products, know-how

↑ Environmental Contribution

↓ Environmental Burden

a new challenge in 'TDK Environmental Action 2020'

Environmental Contribution

other targets for expanding environmental contribution

using renewable energy

10k t-CO2

gradual installation of renewable energy generation corresponding CO2 emissions at non-production sites

arranging during the factory design

determine an installation of renewable energy generation

know-how and services

10k t-CO2

energy measures for the supply chains

energy measures knowledge management

social contribution activities

10k t-CO2

set up each year goal

environmental education to children

Plantation

For the Achievement of Carbon Neutrality



Activities to be downsized

Promotion of energy-saving

Amount of CO2 emissions caused
by production activities

Activities to be expanded

Expansion of contributed products

Amount of contribution
on reducing CO2 emissions
In the society through
products, know-how



- Strengthening of existing measures (each plant)
 - Fuel conversion/Introduction of high-efficiency equipment
 - Strengthening of management

- Drastic improvement of methods/processes
 - Local cleaning
 - Increased furnace efficiency/Use of waste heat

- Development contributing to reduction of burden
 - Materials enabling low-temperature calcination
 - Smaller size / Higher performance

- Development contributing to product contribution
 - Materials/parts with no energy loss when used
 - Expanded performance through product unitization/modularization
 - Proposals to customers for better product contribution
- Quantification/visualization of product contribution
 - Making of rules for calculating product contribution
 - Proposal of common calculating rules for the industry
 - ※ Promotion through industrial organization activities



◆ Other objectives to expand environmental contributions

○ Contribution to society

- Continue tree planting globally.
- Effective utilization of forestry resources
 - ⇒ Have a partnership with local governments to achieve a balance between the preservation of forestry resources and local revitalization

○ Contribution to supply chain

- Already implementing energy-saving guidance to cooperative companies, including overseas ⇒ Expansion of assistance

○ Use of renewable energy

- Further promote introduction and utilization of renewable energy globally.
 - ⇒ Introduction and utilization of renewable energy equivalent to CO₂ emissions resulting from energy use at development bases
(End of FY 2021: Setting of goals to be aimed for)



◆ Other targets to reduce environmental burden

○ Reduction of waste discharge

- Will continue to reduce total waste discharge (Target to be achieved by end of FY 2016.)
 - ⇒ Reduce total waste discharge by more than 1% compared to previous FY.
- Will achieve EPCOS Group target of zero emissions
 - ⇒ Commenced efforts with aim of achievement by end of FY 2013
- Will shift the target from waste reduction to resource utilization (a new aim)
 - ⇒ Introduction of indicators clearly showing effective utilization of resources and setting of numerical targets (scheduled in FY 2014)

○ Reducing water use

- As a result of the increase of overseas production sites, the importance of ensuring and conserving water resources is recognized.
 - ⇒ Strengthened reduction of amount used through setting of group target (※ Production sites have previously been taken action to reduce water by themselves.)
- Reduction of water use by more than 10% globally by end of FY 2021

TDK Environmental Action 2020



- ◆ Announcement of outline of numerical targets and achievement levels
 - For details of TDK Environmental Action 2020, please see the TDK CSR Report 2011, which is scheduled to be issued in late June 2011.
 - As before, progress in the achievement of targets will be announced in the TDK CSR Report.

We look forward to your support and cooperation.

