

March 2018 The High Energy Accelerator Research Organization
 Environment · Global Warming · Energy Conservation Committee

Action target for global warming countermeasure and energy conservation measures in 2018

Item	Action plan
(1) Reduction of CO2 emissions	<p>◇The CO2 emission upper limit target for 2018: 271,220 (t).</p> <p>○It is based on CO2 emissions "273,960 (t)" in fiscal 2005. We aim to reduce this amount by 1%.</p> <p>○Try the following items to achieve the goal</p>
(2) Consideration for construction and management of buildings	<p>1) Effective use of water</p> <ul style="list-style-type: none"> ▪ If necessary, install a sensing flushing valve and automatic faucet at the end of the water supply unit to save water. <p>2) Maintenance of campus environment</p> <ul style="list-style-type: none"> ▪ Reduce waste by reusing fallen leaves and branches emerging from plants growing on campus <p>3) Other</p> <ul style="list-style-type: none"> ▪ Ask builders to use construction machines that are as energy-efficient as possible. ▪ Confirm whether the construction company is processing the construction waste correctly. <p>4) Energy conservation by visualizing energy usage</p> <ul style="list-style-type: none"> ▪ Analyze for efficient energy management and publish concrete activities.
(3) Purchase environment-friendly goods and procure services	<p>1) Introduction of low pollution vehicles</p> <p>2) Efficient use of cars</p> <ul style="list-style-type: none"> ▪ Regularly check the tire pressure. Encourage car maintenance ▪ Effort to Eco Drive ▪ Perform idling stop when the car is stopped ▪ Promote the use of business communication bus <p>3) Introduction of energy saving office equipment</p> <ul style="list-style-type: none"> ▪ Replace OA equipment and household appliances with poor energy efficiency with energy-saving products. ▪ Set energy saving mode and try to reduce standby power of equipment. <p>4) Reduce usage of paper</p> <ul style="list-style-type: none"> ▪ Reduce paper by simplifying meetings and procedures ▪ Double-sided printing, double-sided copy, aggregate print · aggregate copy recommended ▪ If you do not have any problem, use duplex printing. Also, reuse unnecessary paper as much as possible. ▪ Try to make effective use of resources such as reuse of used envelopes

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(3) Purchase environment-friendly goods and procure services	<p>5) Use products such as recycled paper</p> <ul style="list-style-type: none"> ▪ In the case of articles such as stationery, equipment, uniforms and work clothes, if it does not interfere with the purpose of research projects, try to use those made from recycled materials. ▪ Try to use recycled paper for printed matter. <p>6) Promote the purchase and use of products using alternative substances of HFC</p> <ul style="list-style-type: none"> ▪ When exchanging refrigerators, air conditioners, car air conditioners, purchase products using alternative substances of HFC. Or purchase equipment that has less impact on global warming out of products using HFC. ▪ Devices that use fluorocarbons are legally inspected and updated. And make sure not to leak when using <p>7) Introduction of products with less emission of greenhouse gases, selection of raw materials</p> <ul style="list-style-type: none"> ▪ When purchasing goods, confirm beforehand whether there is a product with less emissions of greenhouse gases <p>8) Review vending machine installation</p> <ul style="list-style-type: none"> ▪ When updating a vending machine, energy consumption Choose a model with fewer. <p>9) Other</p> <ul style="list-style-type: none"> ▪ When there is no particular problem, select goods with simple packaging. Or select products that use packaging materials that can be recycled. ▪ When office supplies and electrical products are broken, repair them as much as possible and use them. ▪ Appropriate operation management for energy supply facilities
(4) Consideration to suppress greenhouse gas emissions when doing other projects	<p>1) Suppression of energy consumption</p> <ul style="list-style-type: none"> ▪ Turn off the lighting where there are no people. ▪ Turn off the lights during the lunch break. ▪ Set the temperature of the air conditioner properly. Encourage cool biz warm biz. ▪ Clean the air conditioner filter. (In summer and winter, try cleaning the filter before using the air conditioner.) ▪ Close the cover when not using heating toilet seat. ▪ Turn off the air conditioner in the room not in use. ▪ Do not open or close doors or windows more than necessary when using air conditioners. Use blinds to reduce thermal load. ▪ Turn off the computer when not in use. <p>2) Reduce waste</p> <ul style="list-style-type: none"> ▪ Shredder should only be used for documents containing personal information created by the organization. ▪ Shredder should only be used for documents containing personal information created by the organization.

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(4) Consideration to suppress greenhouse gas emissions when doing other projects	<ul style="list-style-type: none"> ▪ Collect the toner cartridge of the printer and proceed with reuse. ▪ Appropriate disposal is required when OA equipment and cars are disposed of. <p>3) Strategic approach to measures against global warming</p> <ul style="list-style-type: none"> ▪ It shows a model to be a reference for energy conservation. And introduce it on the website. ▪ Clean the outdoor unit of the air conditioner. ▪ Check plant management and water supply facilities. ▪ Efficient operation of equipment ▪ Discussion with the researcher on the utility operation during the quiescence period in KEKB · PF and plan for economical operation.
(5) Consideration for work-life balance · Training for staff	<p>1) Provide staff training and information on global warming and energy conservation.</p> <ul style="list-style-type: none"> ▪ Make staff actively participate in training of other agencies concerning environment consciousness. ▪ Provide staff with information on environmental considerations by website and e-mail. ▪ Collect ideas on energy conservation measures from staff. <p>2) Transmission of information</p> <ul style="list-style-type: none"> ▪ Publish and announce the operation plan on the website. ▪ Publish the amount of electricity and water usage on various conferences and on the website. ▪ Notify the amount of electricity generated by sunlight. ▪ Publish KEK's CO2 emissions in fiscal 2017. <p>3) Education on energy conservation</p> <ul style="list-style-type: none"> ▪ Distribute posters and seals that enlighten energy conservation to various places. ▪ Conduct energy saving patrol. Report the results at various meetings. Post it on the website. <p>4) Promote energy conservation measures</p> <ul style="list-style-type: none"> ▪ Verify at the end of the fiscal year plan and prepare the next year action plan.
(6) Other	<p>1) Promote energy conservation of laboratory equipment and effective use of resources</p> <ul style="list-style-type: none"> ▪ By full-scale operation of SKEKB accelerator, greenhouse gas emissions will increase from the previous year. Suppress this increase by considering the operation plan. ▪ Reduce CO2 emissions by effectively utilizing the energy of experiment equipment. At the same time strive to raise research results. ▪ Advance energy conservation of laboratory equipment ▪ Reuse experimental equipment and laboratory materials as much as possible. ▪ Advance superconductivity for accelerator devices such as electromagnets.