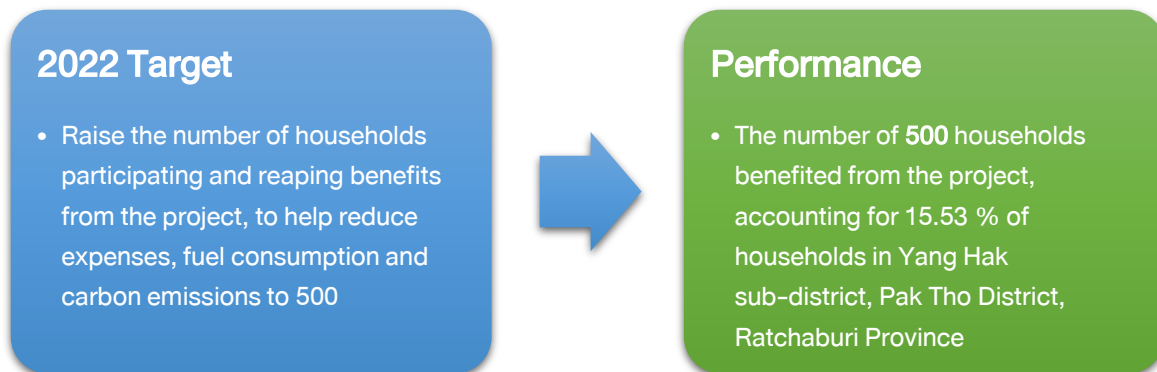


Community Energy Conservation

Community Energy Project Phase 3 (2020–2022), at Yang Hak sub-district, Pak Tho District, Ratchaburi Province



RATCH has carried out the Community Energy Project in collaboration with provincial energy offices since 2014. The objective is to raise awareness and extend knowledge on energy management as well as develop energy technology from local resources for the locals. The project has ably helped communities save energy expenses and earned extra income. In support of the Sustainable Development Goal 13, the project also aims to help the community strengthen resilience and adaptive capacity to climate-related disasters. The Company organized the Community Energy Project Phase 3 (2020–2022) in collaboration with the Ratchaburi Provincial Energy office, the project implemented in Yang Hak Sub-district, Pakthor District, Ratchaburi Province.

In 2022, the company evaluated the energy efficiency of 6 water pumps that switched from gasoline to solar power and 8 solar-powered water pumps, given to the community to support 100 households' agricultural activities along with 2 community energy learning centers. The evaluation showed the project reduced greenhouse gases by 40.8 tons of carbon dioxide equivalent in 2022, saving the households' expenses by THB 330,777. The project benefited 500 households or 15.53 % of households in Yang Hak sub-district, Pak Tho District, Ratchaburi Province.

Project impact assessment in 2020-2022

Activity	Social dimension	Economic dimension	Environmental dimension
Solar-powered water pumps (3,400 watt) given to 6 pilot households <ul style="list-style-type: none"> Six sets of solar-powered water pump equipment and sixty 340-watt solar panels (10 panels for each household) Inverter equipment for solar-powered water pumps and electric cabinet 	6 pilot households	Expenses cut by approximately THB 210,870 per year	Carbon emissions reduced by approximately 26 tCO ₂ e per year
<ul style="list-style-type: none"> Eight 600-watt solar-powered water pumps given for community use 	100 households (Serving agricultural purposes of 98 households and consumption purposes of 17 households)	Expenses cut by approximately THB 49,617 per year	Carbon emissions reduced by approximately 6.12 tCO ₂ e per year
<ul style="list-style-type: none"> Solar-powered pumping system given to 2 learning centers 	2 learning centers	Expenses cut by approximately THB 70,290 per year	Carbon emissions reduced by approximately 8.67 tCO ₂ e per year

Based on TGO's calculation methodology: Gasoline combustion of not-moving engine releases 2.1896 kg of carbon dioxide per liter (kgCO₂e)



LESS: Low Emission Support Scheme

RATCH joined the Low Emission Support Scheme (LESS) for the emission reduction certification of Community Energy Project at Yang Hak Sub-district, Pak Tho District, Ratchaburi Province. RATCH assisted the project's emission reduction through the harnessing of solar power for internal use. During 15 June 2022 and 15 June 2023, it reduced emissions by 42.166 kilograms of carbon dioxide equivalent.