

# RES Programme

## Renewable Energy Solutions Programme

Energy storage for commercial and industrial companies in Pakistan  
November 3rd. 2022

[www.dena.de/en](http://www.dena.de/en)

Gefördert durch:



aufgrund eines Beschlusses  
des Deutschen Bundestages

# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Agenda

- Introduction
- The German Energy Agency
- The RES Programme
- RES Projects

# Introduction

German Energy Agency (dena)

[www.dena.de/en](http://www.dena.de/en)

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## RENEWABLE ENERGY SOLUTIONS PROGRAMME

# We're making the energy transition happen

- **Centre of Expertise**  
for energy efficiency, renewable energy sources and system integration
- **Intermediary**  
between politics, industry, science and society
- **Platform**  
for dialogue with stakeholders from various industries and fields
- **Partner and initiator**  
of the federal government for its energy and climate policy strategy
- **Enabler**  
of the energy transition in concrete projects domestically and abroad

# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Our key areas

STRATEGY AND  
ADVICE

STUDIES AND  
ANALYSES

PROJECT  
DEVELOPMENT

MARKET  
DEVELOPMENT

NETWORKS

COMMUNICATION

# RES Programme

Objectives, Stakeholders, Implementation

[www.dena.de/en](http://www.dena.de/en)

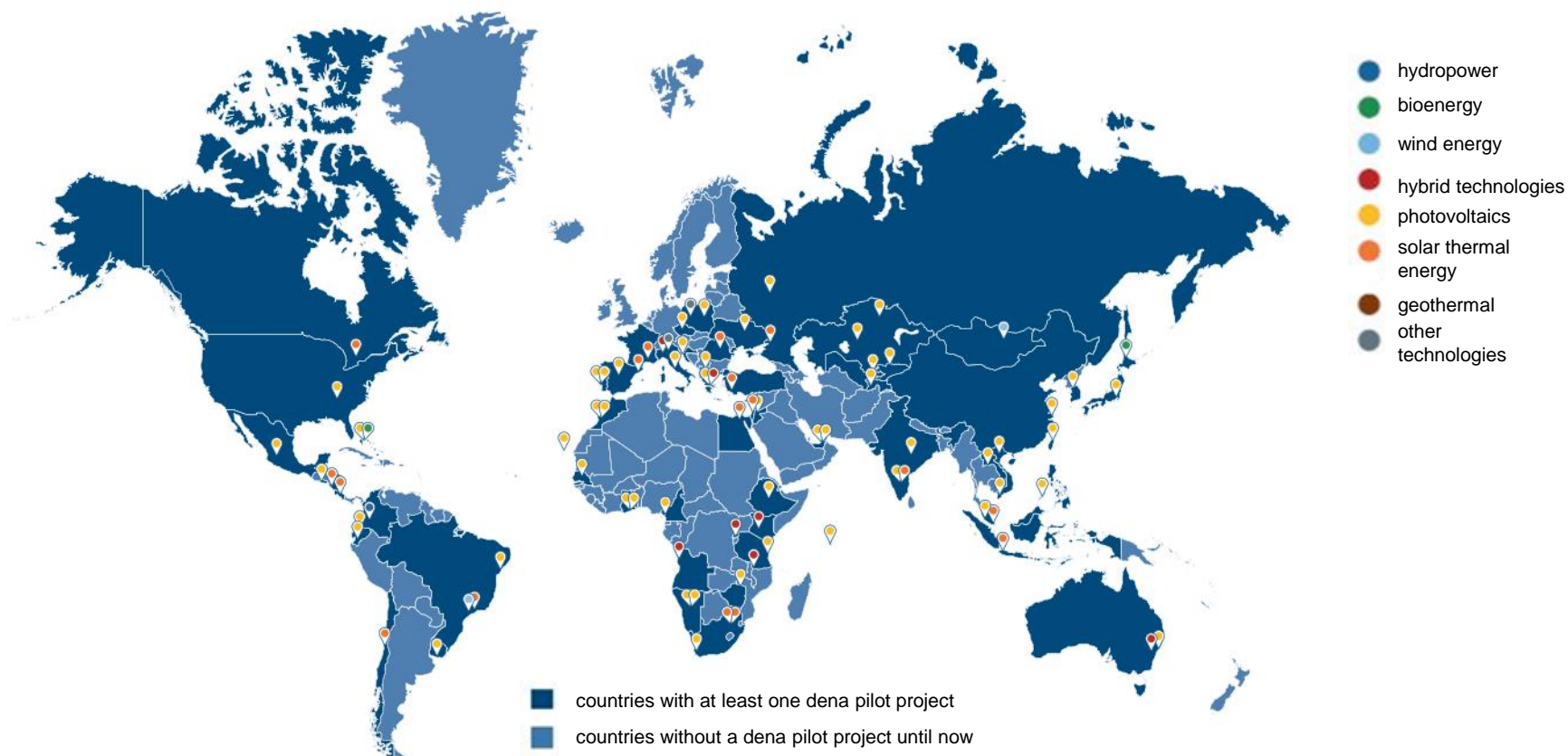
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# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## +100 projects in over 65 countries



# RENEWABLE ENERGY SOLUTIONS PROGRAMME

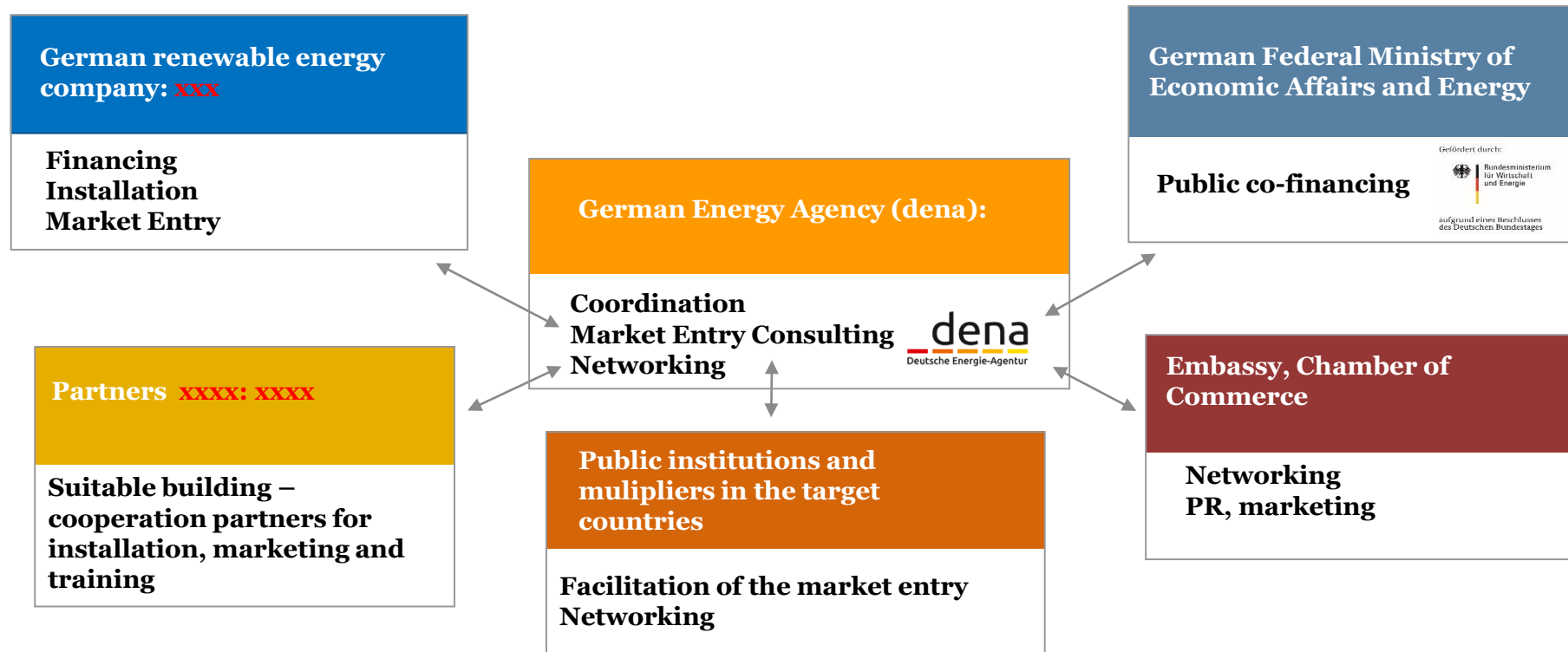
## Objectives

- Supporting German SMEs by providing information regarding their technologies and products and developing a comprehensive PR strategy
- Making a contribution to achieving international climate protection goals
- Initiating long-term cooperations between German and foreign experts in the target markets
- Knowledge exchange regarding applications, technology and costs of renewable energy technology
- Developing education and qualification programmes on specific technologies
- Generating local added value in the field of distribution, installation and maintenance



# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Key Stakeholders



# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Funding

Project	Funding
Demonstration/ reference project	Unlimited (company's contribution to the project)
Provision of information, public relations, training	65.000 € (for the participating company)

# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Content

Reference project	Information and public relations
Photovoltaics, solar heating/cooling, wind, hydropower, bio- or fuel cell technology, geothermal energy - where appropriate in combination with energy efficiency measures and storage technologies	Market entry concept, with measures for information transfer, public relations and training
Construction, commissioning	Opening ceremony

# RES Programme

## Project Schedule

[www.dena.de/en](http://www.dena.de/en)

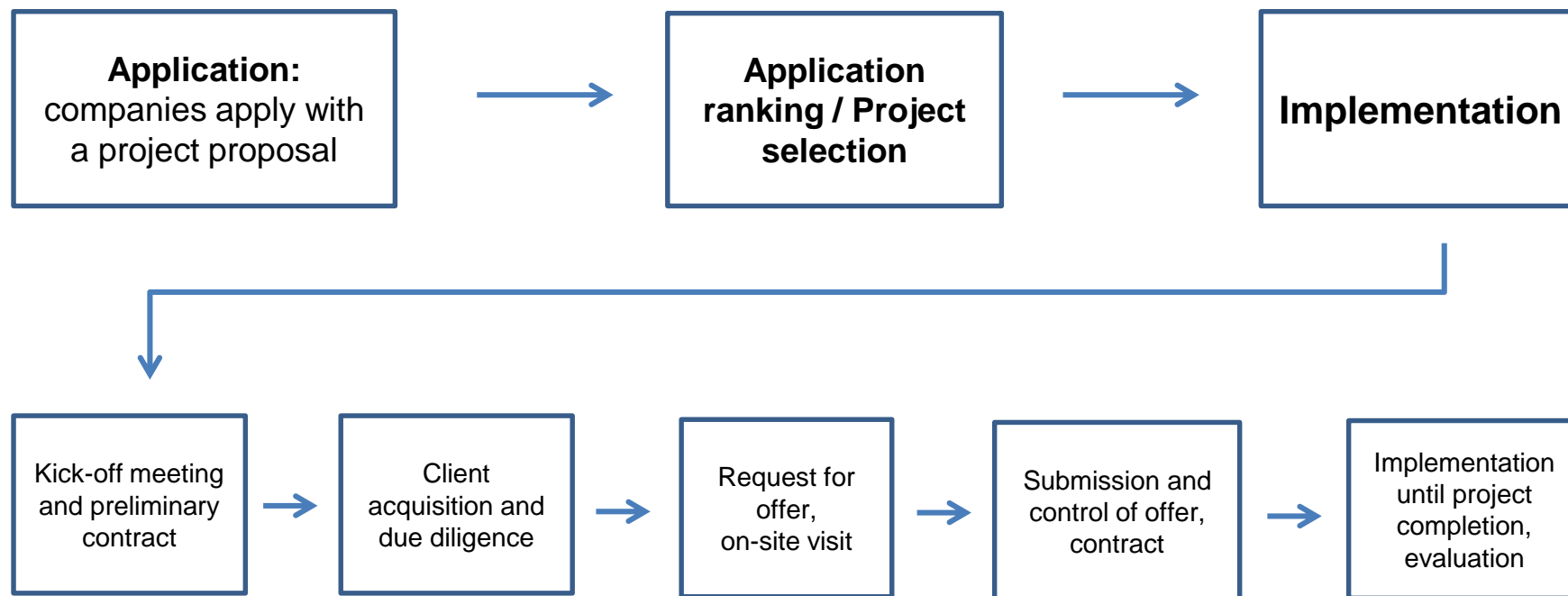
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# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Programme



# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Implementation - Technology

- Installation of a reference plant as the company's own contribution / a condition for participation in the programme
- Licences, transport, customs
- Installation of all components
- Commissioning
- Monitoring of the plant acceptance by dena



## RENEWABLE ENERGY SOLUTIONS PROGRAMME

### Implementation – Information & Public Relations

- Funding up to €65.000
- Events (opening ceremony, participation in or implementation of information events and trade fairs, etc.)
- Press and public relations (publications, media cooperation...)
- Information (Internet, information material, video, photos, notice board...)
- Networking (partners, multipliers...)
- Training (distribution, installation, maintenance...)



## RENEWABLE ENERGY SOLUTIONS PROGRAMME

### Outcome: a Win-Win Situation

For the institution	For the company
High-quality reference technology	Realisation of high-quality reference technologies
Image strengthening and awareness raising	Image strengthening and awareness raising
Increase of property value	Fast, professional market entry
Reliable power supply and reduction of energy costs	Ability to display a concrete example of technology to potential clients
Reduction of CO <sub>2</sub> footprint	Access to important institutions in the target countries



# RES Projects

## Examples

[www.dena.de/en](http://www.dena.de/en)

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## RENEWABLE ENERGY SOLUTIONS PROGRAMM

# Biogas Plant in United Arab Emirates

- Project partner: ME-LE GmbH
- Location: Dairy Company Al-Rawabi, Dubai (largest dairy farm in the UAE), inaugurated in October 2021
- First biogas plant in the Middle East. It will be recycling organic waste from Al Rawabi's operations is expected to generate 1.3 MW of green energy.
- Gas-fired power generation enables self-supply with electricity and waste heat utilisation (cooling of the stable facilities with approx. 15,000 cattle)
- Inauguration: October 2021



## RENEWABLE ENERGY SOLUTIONS PROGRAMM

### First Floating PV System in Kenia

- ecoligo GmbH
- Location: Rift Valley
- 69 kWp on-grid floating PV system on the reservoir of a flower farm connected to a previously installed 75 kWp PV roof system
- Solar-As-A-Service: Crowdinvestment-financing from Germany, local operations partner in charge of maintenance
- Inauguration: June 2021



## RENEWABLE ENERGY SOLUTIONS PROGRAMM

# Innovative Wasser-Supply in Mozambique

- Enteria Energietechnik GmbH
- Location: Pembane, Inhambane province
- Water Tower, 8 fountains pumping 25.000 L/day with 2,56 kWp PV-System.
- Initial investment and operation costs are financed with different donation schemes (for companies and private donors)
- Managed with a Cloud-System, securing transparency
- Inauguration: May 2020





## RENEWABLE ENERGY SOLUTIONS PROGRAMM

# On-Grid PV with Battery Back-up for the Industry in Chile

- Grammer Solar GmbH
- Location: Rhona S.A., Vinha del Mar
- 104 kWp Pv with 24 kWh battery system
- Grid-connected system allows for peak-shaving, thus achieving optimal efficiency
- First system of its kind in Chile. Paving the way for other industries to implement renewables in grid-connected areas
- Inauguration: November 2019



## RENEWABLE ENERGY SOLUTIONS PROGRAMM

# Virtual Power Plant for the Italian Market

- Next Kraftwerke GmbH together with its Italian affiliate Centrali Next
- Location: Cologne / Milan
- Marketing of the electric power produced by the pooled generation plants
- Inauguration: September 2018



## RENEWABLE ENERGY SOLUTIONS PROGRAMM

# PV Diesel Hybrid System with Battery in Chile

- Kraftwerk Renewable Power Solutions GmbH and QINOUS GmbH
- Location: Tierra Hotel, Atacama-Desert
- PV diesel hybrid system with 133 kWp & 330 kWh lithium-ion battery storage
- Inauguration: October 2017
- Project featured e.g. in the National Geographic Magazine



# RENEWABLE ENERGY SOLUTIONS PROGRAMME

## Partners





# THANK YOU

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