

# Reliable and Efficient System for Community Energy Solution

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# Overview

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Reliability and Efficient System for Community Energy Solutions (RESCUES) is a medium size Academia-Industry partnership aimed at developing smart grid (SG) with optimum sensible storage solutions for rural communities across UK and India.





RESCUES

# Project Team

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## **UK:**

Imperial College London (ICL)  
University of Exeter (UoE)  
University of Strathclyde (UoS)

## **India:**

Indian Institute of Technology, Madras (IITM )  
Indian Institute of Technology, Kharagpur (IITKGP)  
Indian Institute of Technology, Delhi (IITM )  
Delhi Technological University (DTU)  
Visvesvaraya National Institute of Technology  
(VNIT)

## **Industrial Partners:**

ABB

Alstom

Bowman Power

EON

GE

# Reliable and Efficient System for Community Energy Solutions (RESCUES)

S.No.	Workpackage	2013	2014												2015												2016												2017
		Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan
1	WP 1: System specification (All)																																						
2	WP 2: Network control, dynamic reconfiguration and load management (ICL, IITKGP, IITD, QUB)																																						
3	WP 2.1: Voltage control (ICL, IITKGP)																																						
4	WP 2.2: Frequency control (ICL, IITKGP)																																						
5	WP 2.3: Load management (ICL, IITD, IITKGP, QUB)																																						
6	WP 3: Power electronic interface (IITKGP, UoE, VNIT, QUB)																																						
7	WP 4: AC micro grid (IITKGP, VNIT, UoE, DTU)																																						
8	WP 4.1: Power quality of AC micro grid (IITKGP, VNIT, UoE)																																						
9	WP 4.2: Truly seamless transfer between modes of operation (IITKGP, DTU, UoE)																																						
10	WP 5: DC micro grid (QUB, IITD, IITKGP, VNIT)																																						
11	WP 6: Thermal energy storage and load management (UoE/ IITM)																																						
12	WP 7: Prototype demonstration (IITD, all)																																						
13	WP 8: Management and research exchange (ICL/IITKGP)																																						

Legend:

Workpackage



Sub-Workpackage



ICL PDRA: WP1, WP2.1, WP2.2, WP2.4, WP7  
UoE PDRA1: WP1, WP6, WP7  
UoE PDRA2: WP1, WP3, WP4.1, WP7

UoE PDRA: WP1, WP2.4, WP3, WP7  
UoE PhD: WP4.2, WP7

Note: Due to large number of Indian researchers in the project; there will be constant work in all Indian WP's.



RESCUES

# Travel resources quantified

	Destination and Purpose	Overseas	Total £
<a href="#">view</a>	Meeting with Indian Partner - Imperial	Y	9,000
<a href="#">view</a>	Researchers Exchange with India - Imperial	Y	4,500
<a href="#">view</a>	International Conference Travel -Imperial	Y	6,000
<a href="#">view</a>	UK-EU Conference - Imperial	N	4,000
<a href="#">view</a>	UK Project Review Meeting - Imperial	N	4,800
<a href="#">view</a>	Meeting with India partner - Queen's	Y	7,500
<a href="#">view</a>	Research exchange with India - Queen's	Y	3,000
<a href="#">view</a>	International conference travel - Queen's	Y	4,500
<a href="#">view</a>	UK-EU conference - Queen's	N	3,000
<a href="#">view</a>	UK project meeting - Queen's	N	3,200
<a href="#">view</a>	Meeting with Indian Partner - Exeter	Y	14,864
<a href="#">view</a>	UK Project Review meeting - Exeter	N	7,000
<a href="#">view</a>	Research Exchange with India - Exeter	Y	5,800
<a href="#">view</a>	International Conference Travel - Exeter	Y	10,500
<a href="#">view</a>	UK-EU Conference: Exeter	N	9,200
		Total: £	96,864



RESCUES

# Project Meetings

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## **Audio/video Meetings:**

Audio/video teleconferences among all partners held once in every two months  
One-to-one conferencing held when necessary

## **Face-to-face Meetings:**

Face-to-face meetings for whole consortium once in every six months, in UK and India alternately

## **Scientific Advisory Board (SAB) Meeting:**

Taking place during annual project meetings

# Research Exchange

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The call encourages extensive interaction between researchers on both sides.

The PDRA visit will offer a valuable training opportunity for the PDRAs in Indian universities, and develop their multi-cultural research environment.

One visit will coincide with the annual review meeting in India when UK investigator will also visit.

The UK PI requests £96k in total for this over the entire duration of the project for four PDRAs and UK investigators to travel and stay in India.

£45K is the budget allowed for researchers exchanges and meetings- please make sure they are spent



# Next meeting

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**General Assembly Meeting in the UK:**  
Early December 2015