



Renewable Energy Confederation of Nepal (RECoN)

नेपाल नवीकरणीय ऊर्जा परिसंघ

## Prospects of Mini-grid in Nepal

An online event aiming at exchange of knowledge and experience sharing for Mini-grid to be accessible, affordable and available to all those residing at remote and distant terrains of the country to be truly electrified so as they will be able to work in electricity including cooking food in a non-polluting environment. Moreover, planning and installing with technical and financial optimal. **On Sunday May 31, 2020 (1:00 PM to 3:00 PM).**



Presentation by :  
Mr. Devendra Adhikari  
Mr. Krishna Prasad Devkota



Facilitation by :  
Mr. Vishwa Bhushan Amatya



Guests and speakers :  
Mr. Madhu Prasad Bhetwal,  
Prof. Dr. Govind Raj Pokharel,  
Dr. Narayan Chaulagain,  
Dr. Ram Prasad Dhital,  
Mr. Madhusudhan Adhikari

Green and Inclusive Energy Programme (GIE Nepal Project)

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INTERNATIONAL NETWORK ON  
GENDER AND SUSTAINABLE ENERGY



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"Working on RETs to build better community"

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For more information,  
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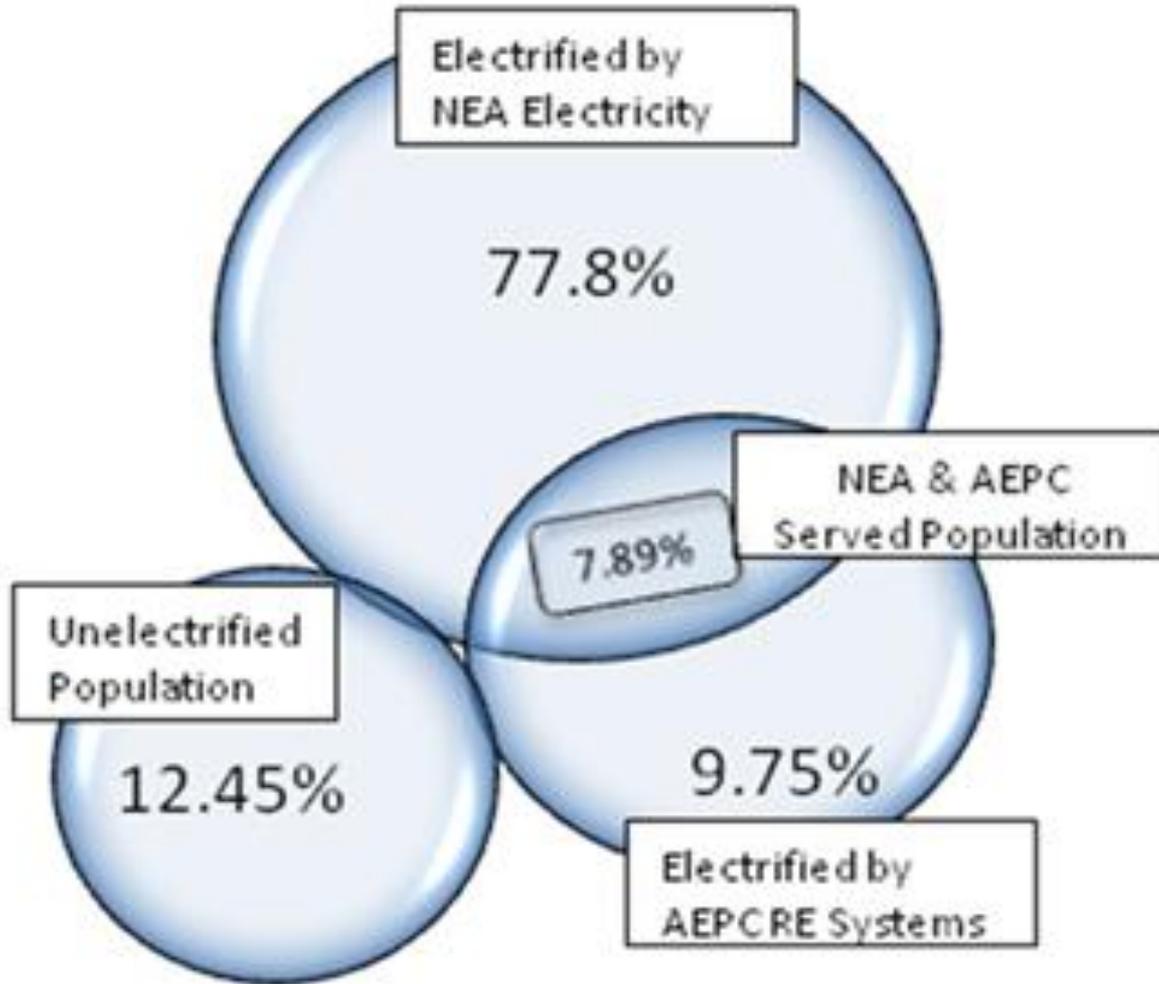
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# Electricity Access-Last year



# Electricity Access-Gesto Report

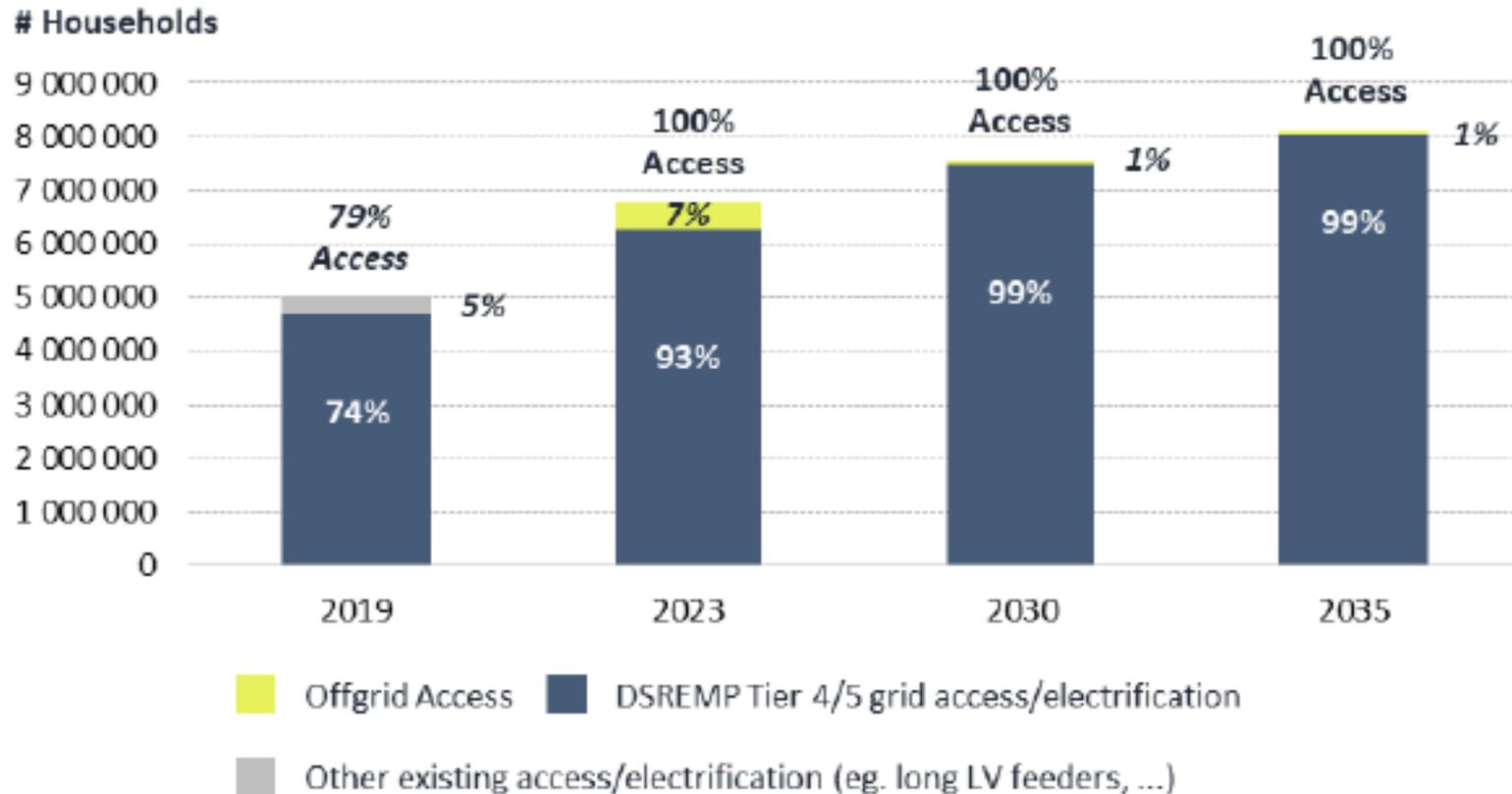


Figure 6.3 – Households grid and gff-grid access evolution in Nepal

# Electricity Access-Gesto Report

By the end of 2023, there are a total of 63 municipal capitals not planned to have grid access of which 7 will be supplied with a permanent off-grid system, while the remaining 56 are intended to be transitional off-grid systems, as these locations are not connected to the national distribution network.

**Table 6.2 – Off-grid Municipal Capitals**

	Transitional Municipal Capitals	Permanent Municipal Capitals
Province 1	16	0
Province 2	0	0
Province 3	5	0
Province 4	6	2
Province 5	8	0
Province 6	11	5
Province 7	10	0
<i>Nepal</i>	<i>56</i>	<i>7</i>

# Electricity Access-Gesto Report

Table 6.3 – Off-grid systems distribution per Province

	Solar Mini-grid Systems	Solar Home Systems	Hydro Mini-grid Systems
<b>Prov. 1</b>	561 (4 523)	2 180 (12 362)	30 (863)
<b>Prov. 2</b>	117 (1 098)	0	0
<b>Prov. 3</b>	205 (1 446)	1 996 (15 831)	86 (2 646)
<b>Prov. 4</b>	1 140 (9 511)	92 (454)	25 (1 025)
<b>Prov. 5</b>	1 675 (11 249)	56 (56)	23 (614)
<b>Prov. 6</b>	1 993 (16 810)	5 (5)	24 (727)
<b>Prov. 7</b>	2 041 (16 948)	39 (39)	57 (1 437)

# Subsidy MHP Vs SMG

Category	Subsidy MHP up to 1000kW				Subsidy SMG -100kW			
	Per kW	Per HH	Nos HHs/kW	Total subsidy /kW	Per kW	Per HH	Nos HHs/kW	Total subsidy /kW
Very remote	205,000	35,000	5	380,000				
A	125,000	32,000	5	285,000	175,000	32,000	10	495,000
B	110,000	30,000	5	260,000	165,000	30,000	10	465,000
C	100,000	28,000	5	240,000	150,000	28,000	10	430,000
<b>Average</b>	<b>135,000</b>	<b>31,250</b>	<b>5</b>	<b>291,250</b>	<b>163,333</b>	<b>30,000</b>	<b>10</b>	<b>463,333</b>

# Minigrid Initiatives in AEPC

S. No.	Description	Subsidy policy 2073 Hydro- 1MW Solar-100kW	Himali Mini G Grids- GoN +KfW-DKTI Primarily solar upto 100kW-Hydro need to add	SASEC Minihydro - 1MW and Solar Minigrid – 150kWp ADB and GoN	MGEAP Mini Grids GoN+World Bank
1	Project development Financing	Community/Co-operative mix financing +PPP	In principle demand and owned by LG or its local representative-co-operative	Community/Co-operative mix financing	Private owner- Energy Service Company (ESCO)  A B C-Model
2	Subsidy of GON	As discussed	Subsidy 90 % Federal Government + 10 % PG+LG+Local people.	Solar Minigrid- Subsidy 90% +Equity +Loan  Minihydro- Subsidy 60%+Equity+Loan	GoN Subsidy – Maximum up to 60 % + WB 10 % to 30 % + Equity min. 10 %
3	Ownership O&M Management	Community/ Co-operative	Local Government/ /Cooperative	Community/ Co- operative	ESCO (Private Company)

# Issues and way forward

## 1. Old MHP/Minigrid

- Hand over of old MHP/Minigrid to LG- to O&M and oversight
- Maintenance fund – RE Conditional Grant and LG grant for O&M

## 2. New project – MMHP/Mingrids-to meet Ujjyal Nepal - 2023

- Jointly agreed between AEPC and NEA.
- Financing mostly from Public funds-FG, PG and LG-Ownership under LG
- Complete with in 2023

## 3. Sick Project-around 200 nos.

- Sick Projects -settle project to project basis-50-most difficult.
- Need to write off a few and complete rest-150- Karnali PG moved on.

## 4. Grid connection of MHPs and Minigrids

- PPA procedure-IPP standard is very complicated for Minigrid
- PPA rate – minimum posted – no reduction of subsidy.
- Technical standard-very high standard and high cost

Thank you.