

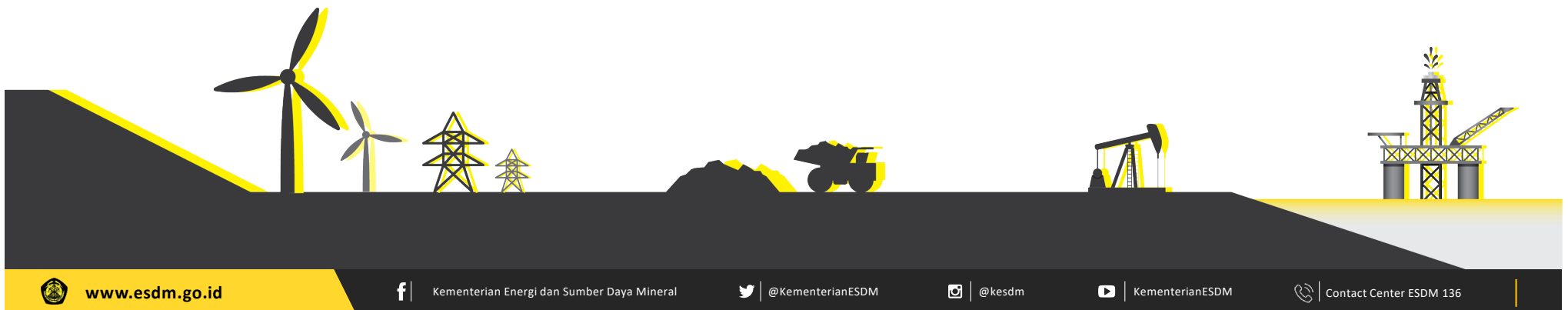


Kementerian Energi dan Sumber Daya Mineral
Republik Indonesia

HOW TO ELECTRIFY 100% VILLAGES AND HOUSEHOLD IN INDONESIA? -CHALLENGES AND OPPORTUNITY-

Beyond 100%: What does Universal Energy Access Means? By IESR

Jakarta, September 2020



www.esdm.go.id



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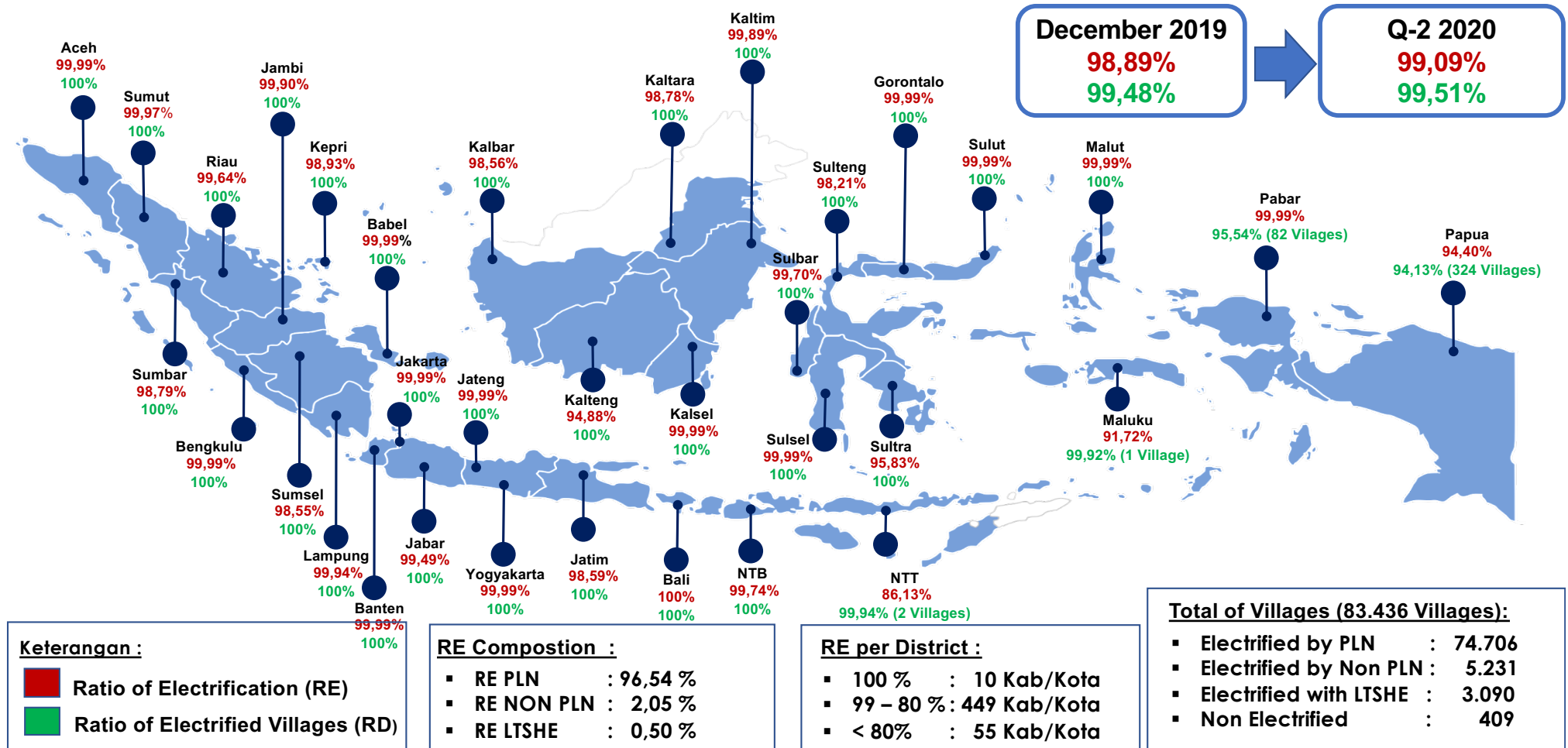


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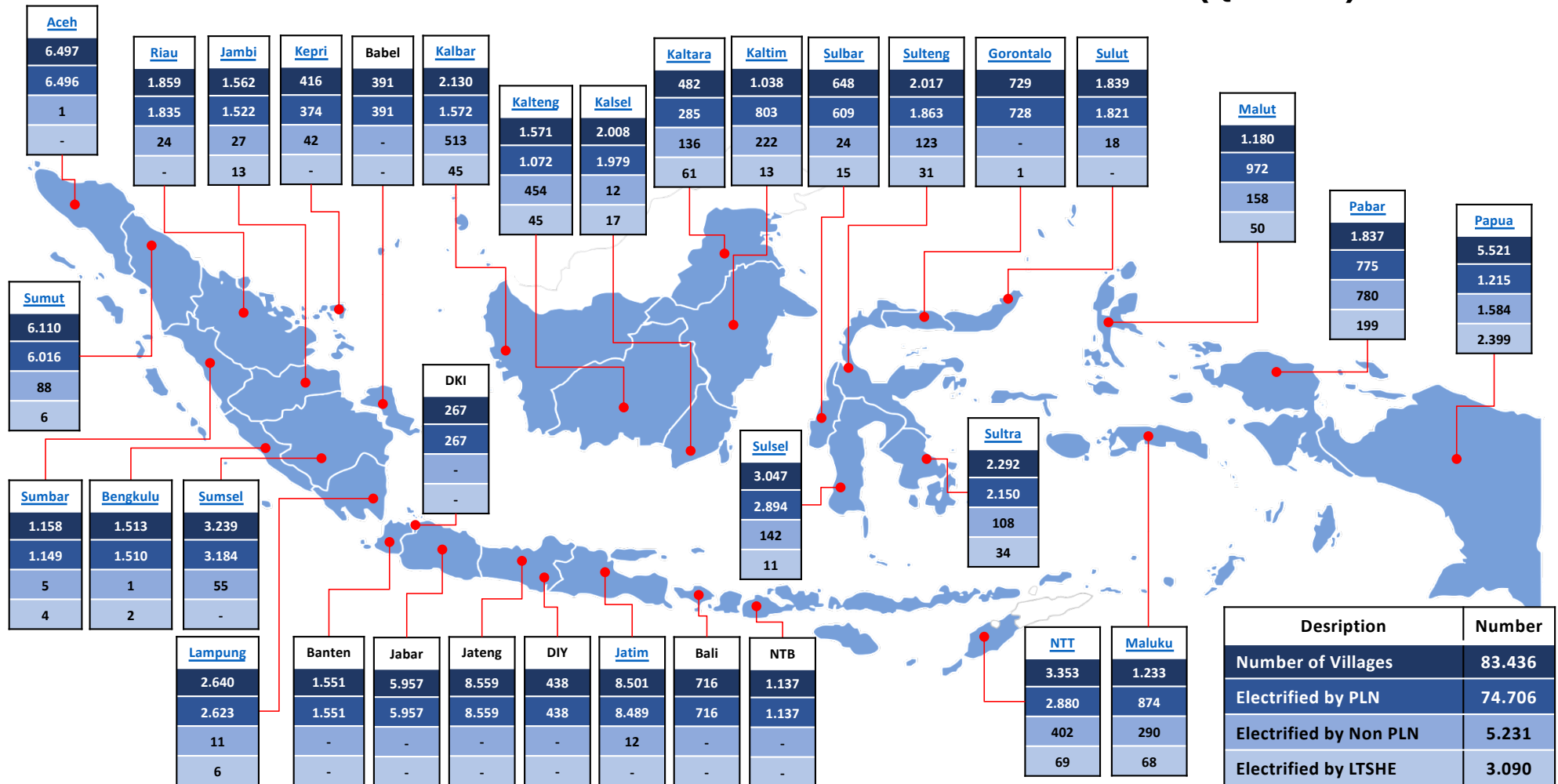


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RATIO of ELECTRIFICATION DAN RATIO of ELECTRIFIED VILLAGES APRIL 2020



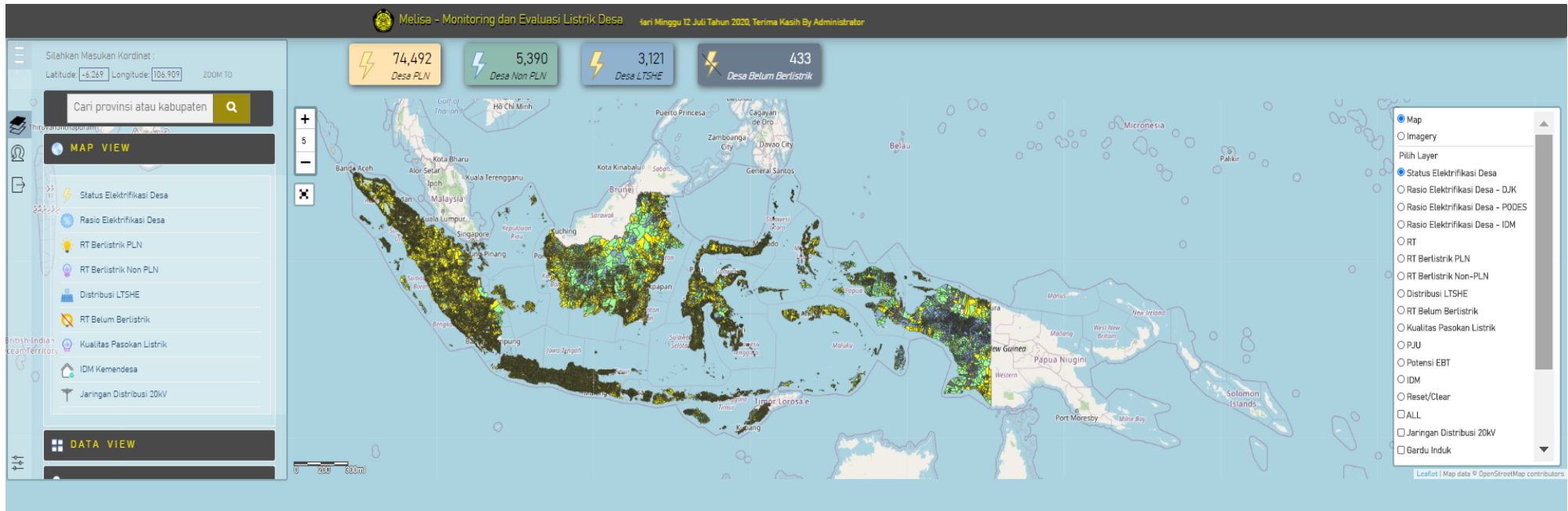
THE NUMBER OF ELECTRIFIED VILLAGES (Q-2 2020)



Desription	Number
Number of Villages	83.436
Electrified by PLN	74.706
Electrified by Non PLN	5.231
Electrified by LTSHE	3.090



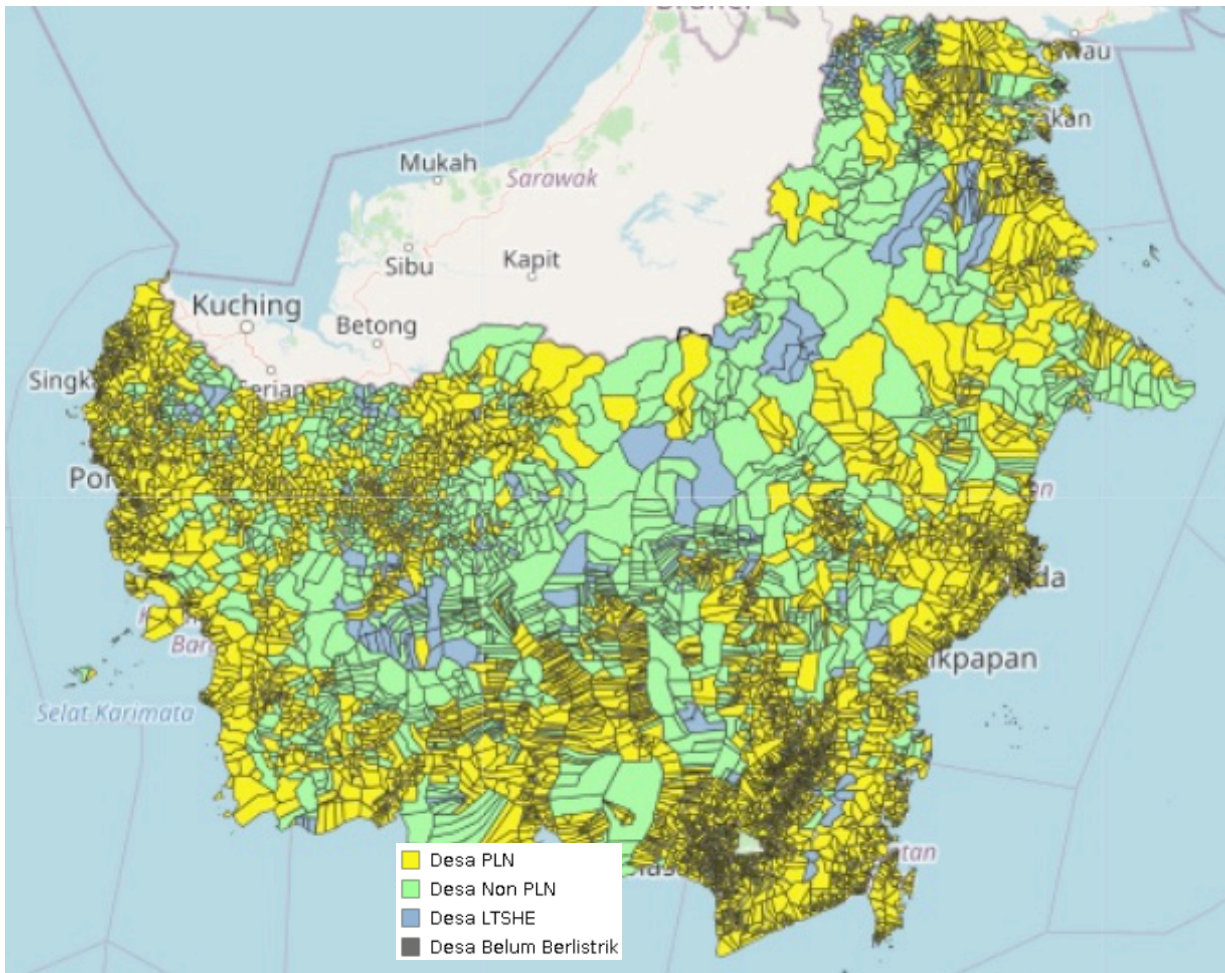
THE IMPORTANT OF RURAL ELECTRIFICATION PLANNING WITH GEOSPATIAL BASED PLATFORM



Benefit:

- Data update & integration (KESDM, Bappenas, Kemendes, Kemendagri, 34 Provinsi, Institusi lainnya)
- Planning more effective & efficient to set the priority
- Appropriate technology implementation (grid expansion, minigrid or standalone technology)
- Tools to data clarification & verification

KALIMANTAN

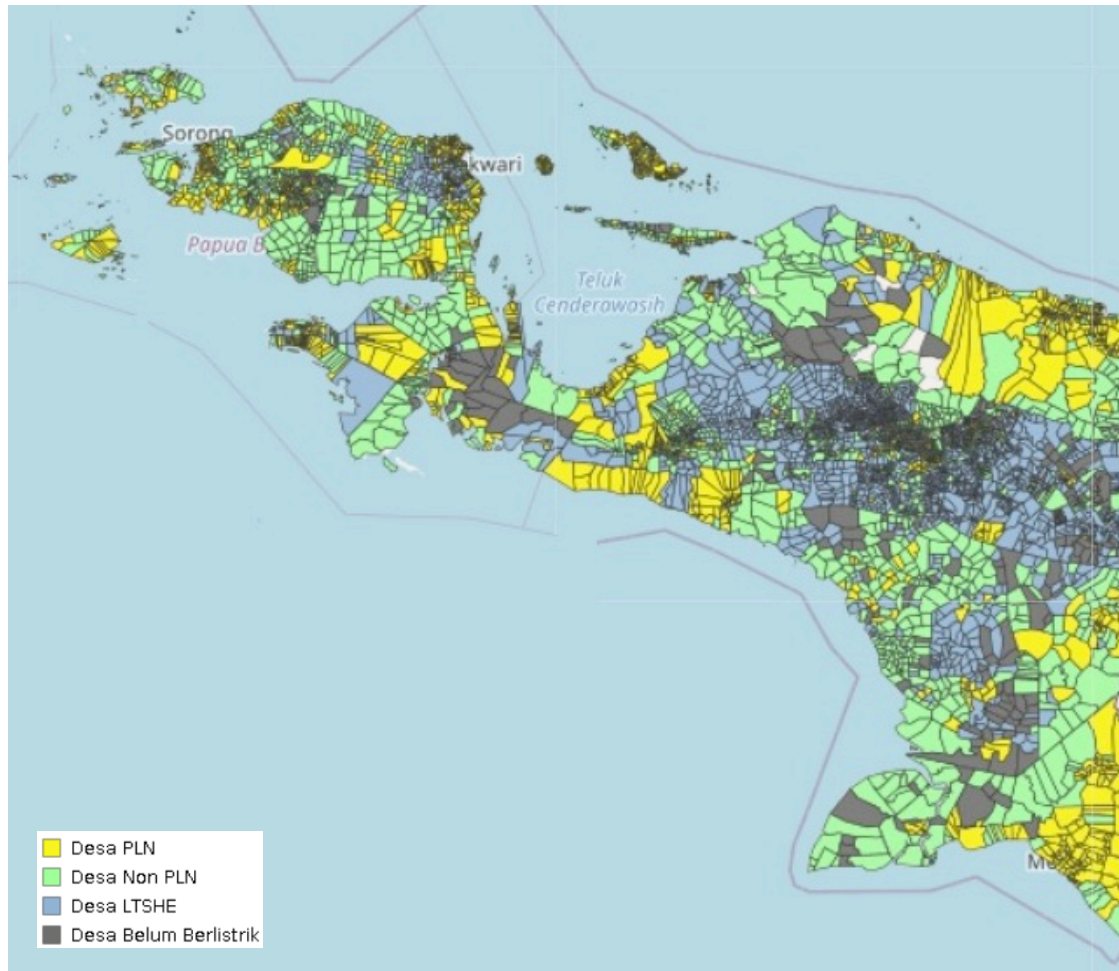


Provinsi	Kalbar	Kalteng	Kalsel
Total Desa	2.130	1.571	2.008
Desa PLN	1.572	1.072	1.979
Desa Non PLN	513	454	12
Desa LTSHE	45	45	17
Desa Belum Berlistrik	-	-	-

Provinsi	Kaltim	Kaltara
Total Desa	1.038	482
Desa PLN	803	285
Desa Non PLN	222	136
Desa LTSHE	13	61
Desa Belum Berlistrik		



PAPUA & PAPUA BARAT



Provinsi	Pabar
Total Desa	1.837
Desa PLN	775
Desa Non PLN	780
Desa LTSHE	199
Desa Belum Berlistrik	83

Provinsi	Papua
Total Desa	5.521
Desa PLN	1.215
Desa Non PLN	1.584
Desa LTSHE	2.399
Desa Belum Berlistrik	323



THE PLANNING TO ELECTRICITY ACCESS FOR VILLAGES & HOUSEHOLD

A. CURRENT CONDITION (Q-2 2020)

1. Ratio of Electrified Villages (RD) = 99,51%
 - Total Number Villages = 83.436
 - Total Electrified Villages = 83.027
 - ✓ Electrified by PLN = 74.706
 - ✓ Electrified by Non-PLN = 5.231
 - ✓ Electrified by LTSHE = 3.090
 - Total Non-Electrified Villages = 409
 - ✓ Papua = 324
 - ✓ Papua Barat = 82
 - ✓ Nusa Tenggara Timur = 2
 - ✓ Maluku = 1
2. Ratio of Electrification (RE) = 99,09%
 - Total of Household = 73.533.383
 - Electrified Household = 72.867.891
 - Non Electrified Household = 665.492
 - Estimation Household to be Electrified (End of 2020) = 983.885

B. STRATEGY

1. Grid Expansion if the villages near the grid existing
2. Minigrid development if the villages far from grid existing and the household live in comunal
3. Charging Station Development and Battery Storage Distribution (TALIS) if the household live scattered in some area

C. ACTION

1. To electrify Non Electrified 433 Villages in 2020. Update progres 24 Villages have been energized
2. To electrify Non PLN Villages dan LTSHE Villages gradually to increase the level of reliability and sustainability suplay
3. Expansion access of electricity to sub Villages and household that have been electrified with PLN
4. To give electricity connection to poor people with New Electricity Installation Aid 450 VA (BPBL 450) in order to get electricity from PLN



STRATEGY AND TECHNOLOGY OPTION TO ELECTRIFY VILLAGES AND HOUSEHOLD



Strategy and Technology to electrify 433 Villages:

- | | |
|--|----------------|
| 1. Grid Expansion | : 52 villages |
| 2. Minigrid in Comunal System | : 75 villages |
| 3. Charging Station with Renewable power generation and Battery Storage Distribution (TALIS) | : 306 villages |

Thank you

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RASIO DESA BERLISTRIK (TRIWULAN II 2020)

NO	PROVINSI	JUMLAH DESA	BERLISTRIK			BELUM BERLISTRIK	%
			PLN	NON PLN	LTSHE		
1	Aceh	6.497	6.496	-	1	-	100,00%
2	Sumatera Utara	6.110	6.001	100	9	-	100,00%
3	Sumatera Barat	1.158	1.149	5	4	-	100,00%
4	Kepulauan Riau	416	374	42	-	-	100,00%
5	Riau	1.859	1.826	33	-	-	100,00%
6	Jambi	1.562	1.510	39	13	-	100,00%
7	Bengkulu	1.513	1.510	1	2	-	100,00%
8	Sumatera Selatan	3.239	3.178	61	-	-	100,00%
9	Bangka Belitung	391	391	-	-	-	100,00%
10	Lampung	2.640	2.623	11	6	-	100,00%
11	Banten	1.551	1.551	-	-	-	100,00%
12	DKI Jakarta	267	267	-	-	-	100,00%
13	Jawa Barat	5.957	5.957	-	-	-	100,00%
14	Jawa Tengah	8.559	8.559	-	-	-	100,00%
15	DIY	438	438	-	-	-	100,00%
16	Jawa Timur	8.501	8.489	12	-	-	100,00%
17	Bali	716	716	-	-	-	100,00%
18	Nusa Tenggara Barat	1.137	1.137	-	-	-	100,00%
19	Nusa Tenggara Timur	3.353	2.777	493	78	5	99,85%
20	Kalimantan Barat	2.130	1.556	529	45	-	100,00%
21	Kalimantan Tengah	1.571	1.060	466	45	-	100,00%
22	Kalimantan Selatan	2.008	1.979	12	17	-	100,00%
23	Kalimantan Timur	1.038	788	236	14	-	100,00%
24	Kalimantan Utara	482	282	138	62	-	100,00%
25	Sulawesi Barat	648	602	26	20	-	100,00%
26	Sulawesi Selatan	3.047	2.892	144	11	-	100,00%
27	Sulawesi Tengah	2.017	1.860	126	31	-	100,00%
28	Sulawesi Tenggara	2.292	2.113	136	43	-	100,00%
29	Sulawesi Utara	1.839	1.821	18	-	-	100,00%
30	Gorontalo	729	728	-	1	-	100,00%
31	Maluku	1.233	870	294	68	1	99,92%
32	Maluku Utara	1.180	967	163	50	-	100,00%
33	Papua	5.521	1.210	1.587	2.399	325	94,11%
34	Papua Barat	1.837	753	783	199	102	94,45%
TOTAL		83.436	74.430	5.455	3.118	433	99,48%

BERLISTRIK			BELUM BERLISTRIK	%
PLN	NON PLN	LTSHE		
6.496	-	1	-	100,00%
6.016	88	6	-	100,00%
1.149	5	4	-	100,00%
374	42	-	-	100,00%
1.835	24	-	-	100,00%
1.522	27	13	-	100,00%
1.510	1	2	-	100,00%
3.184	55	-	-	100,00%
391	-	-	-	100,00%
2.623	11	6	-	100,00%
1.551	-	-	-	100,00%
5.957	-	-	-	100,00%
8.559	-	-	-	100,00%
438	-	-	-	100,00%
8.489	12	-	-	100,00%
716	-	-	-	100,00%
1.137	-	-	-	100,00%
2.880	402	69	2	99,94%
1.572	513	45	-	100,00%
1.072	454	45	-	100,00%
1.979	12	17	-	100,00%
803	222	13	-	100,00%
285	136	61	-	100,00%
609	24	15	-	100,00%
2.894	142	11	-	100,00%
1.863	123	31	-	100,00%
2.150	108	34	-	100,00%
1.821	18	-	-	100,00%
728	-	1	-	100,00%
874	290	68	1	99,92%
972	158	50	-	100,00%
1.215	1.583	2.399	324	94,13%
775	781	199	82	95,54%
74.706	5.231	3.090	409	99,51%

RD TW II = 99,51%

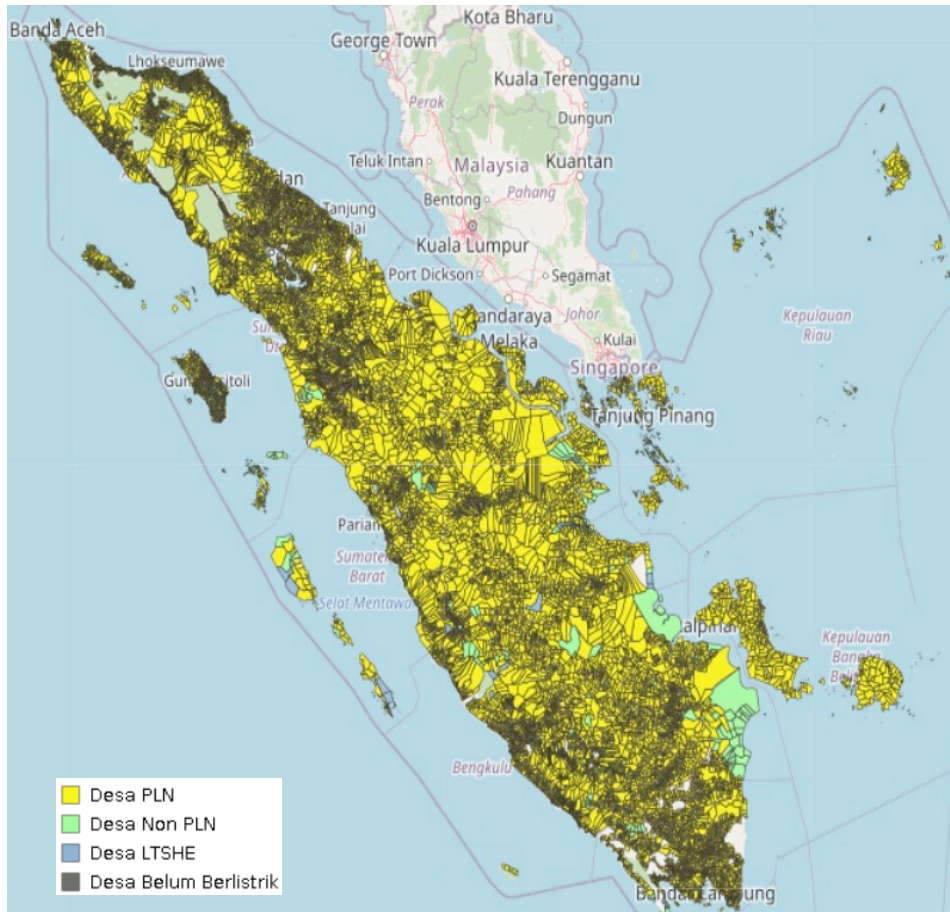
Desa	Jumlah
Desa Nasional	83.436
Desa Berlistrik PLN	74.706
Desa Berlistrik Non PLN	5.231
Desa Berlistrik LTSHE	3.090
Desa Belum Berlistrik	409

Penambahan 24 Desa dengan grid bagian dari 433 belum berlistrik :

- NTT : 3 Desa
- Papua : 1 Desa
- Papua Barat : 20 Desa



SUMATERA

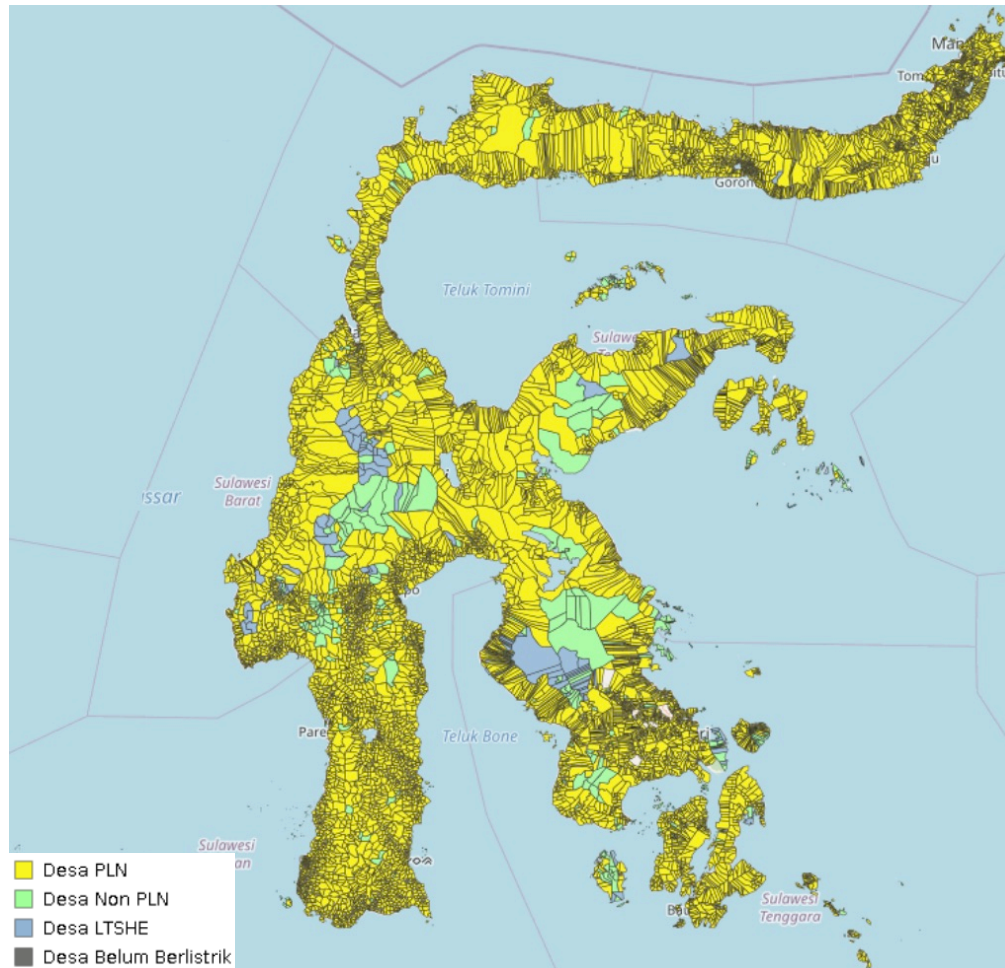


Provinsi	Aceh	Sumut	Riau	Kepri	Sumbar
Total Desa	6.497	6.110	1.859	416	1.158
Desa PLN	6.496	6.016	1.835	374	1.149
Desa Non PLN	1	88	24	42	5
Desa LTSHE	-	6	-	-	4
Desa Belum Berlistrik	-	-	-	-	-

Provinsi	Babel	Sumsel	Jambi	Bengkulu	Lampung
Total Desa	391	3.239	1.562	1.513	2.640
Desa PLN	391	3.184	1.522	1.510	2.623
Desa Non PLN	-	55	27	1	11
Desa LTSHE	-	-	13	2	6
Desa Belum Berlistrik	-	-	-	-	-



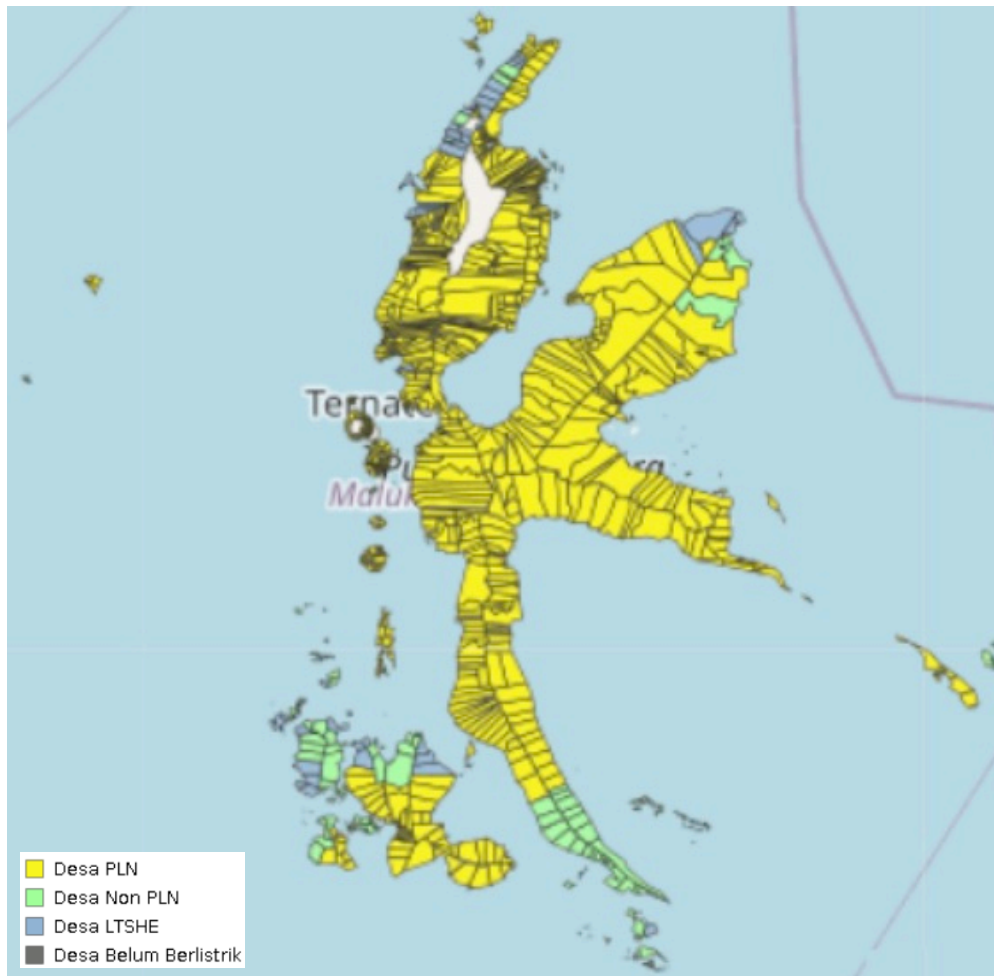
SULAWESI



Provinsi	Sulut	Gorontalo	Sulteng
Total Desa	1.839	729	2.017
Desa PLN	1.821	728	1.863
Desa Non PLN	18	-	123
Desa LTSHE	-	1	31
Desa Belum Berlistrik	-	-	-

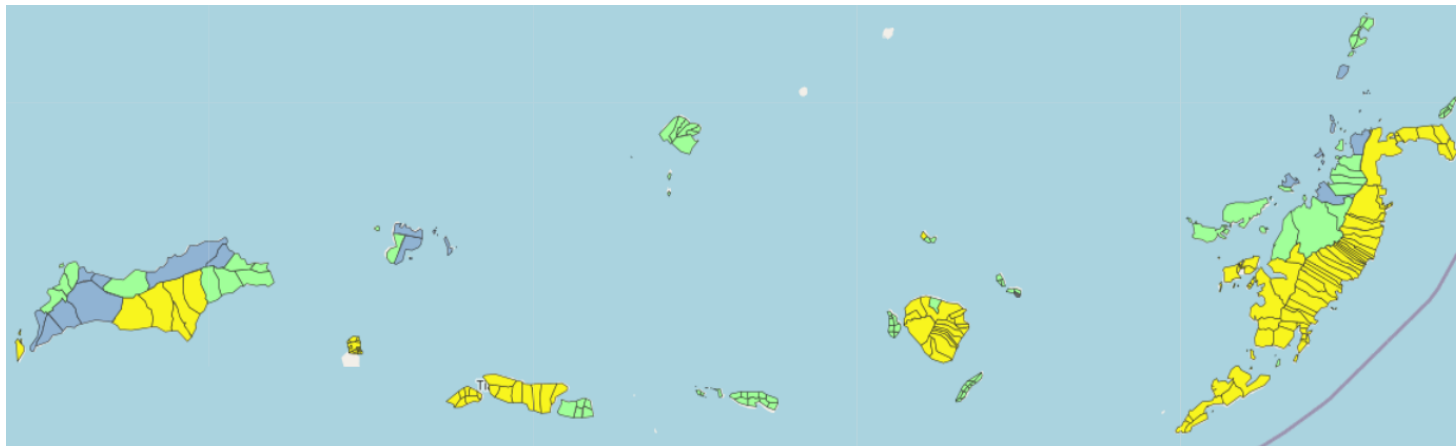
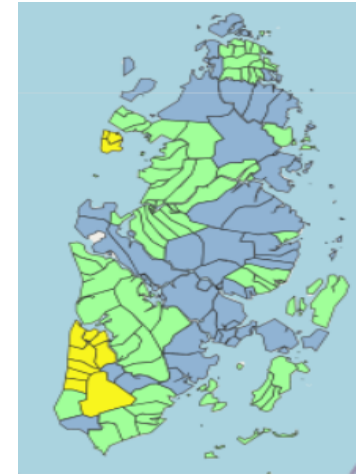
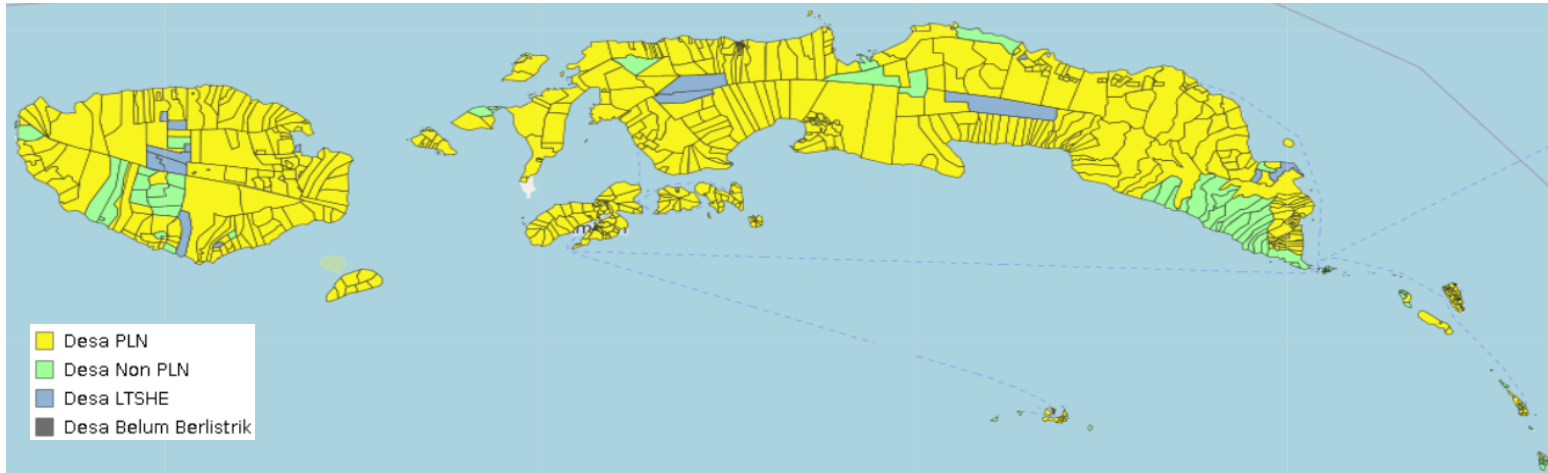
Provinsi	Sulsel	Sulbar	Sutra
Total Desa	3.047	648	2.292
Desa PLN	2.894	609	2.150
Desa Non PLN	142	24	108
Desa LTSHE	11	15	34
Desa Belum Berlistrik	-	-	-

MALUKU UTARA



Provinsi	Malut
Total Desa	1.180
Desa PLN	972
Desa Non PLN	158
Desa LTSHE	50
Desa Belum Berlistrik	-

MALUKU



Provinsi	Maluku
Total Desa	1.233
Desa PLN	874
Desa Non PLN	290
Desa LTSHE	68
Desa Belum Berlistrik	1



NUSA TENGGARA TIMUR

