

1 Tables and Figures

2 **Table S1 : List of RES, CEA and Epos-France (1962) seismic stations in the vicinity of Cigoé site. Stations belonging to the**
 3 **RES network are marked in red.**

Network code	Station code	Latitude (°)	Longitude (°)	Elevation (m)	Site name (French department number)	Start time	End time
FR	BETHI	49,2417	5,2278	201	Béthincourt (55)	06/09/2019	-
RD	CDF	48,4122	7,2761	1068	Champ-du-Feu (67)	28/02/1965	-
RD	ETNF	48,2600	6,0370	300	Estrennes (88)	15/12/2017	-
FR	FAHY	47,5055	5,4631	242	Fahy-lès-Autrey (70)	14/11/2017	-
RD	HAU	48,0056	6,3481	577	Haudompré -88)	23/01/1965	-
RD	HINF	47,8167	6,8531	720	Hinteralfeld (68)	30/11/1995	-
FR	MANO	48,8277	5,9225	273	Manonville (54)	05/07/2018	-
RD	MEZF	48,5019	5,0519	245	Maizières-les-Joinville (52)	14/02/2002	-
FR	MOLES	47,9307	4,3919	283	Molesme (21)	02/05/2019	-
FR	NEUF	49,3259	6,0255	260	Neufchef (57)	21/01/2013	-
RD	PAGF	48,5551	5,7251	384	Pagny-la-Blanche-Côte/Champougny (55)	29/05/2008	-
RD	RFYF	48,6290	5,4741	0,33	Reffroy (55)	20/08/2002	11/09/2008
FR	RONF	47,7107	6,6472	415	Ronchamp (70)	12/04/2013	-
RD	SAVF	48,6152	5,1241	264	Savonnieres-en-Perthois (55)	15/12/2014	-
RD	SFTF	48,2042	5,0372	396	Sexfontaine (52)	01/04/2002	-
FR	THEF	48,2282	5,9939	469	They-Sous-Montfort (88)	05/06/1994	31/12/2011
FR	VILS	49,1220	4,0860	200	Ville-en-Selve (51)	02/11/2011	-
FR	XAFF	48,4071	6,6195	279	Xafféwillers (88)	05/04/2018	-

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Table S2 : Timeline of installation and upgrade of RES seismic stations since 1965. The month of installation/upgrade appears between brackets. T120+ZM stands for Trillium T120 + vertical ZM500.

Station code	1965	1995	2002	2008	2014	2017	2018	2020	2023
CDF	ZM500 (Jan)								
HAU	ZM500 (Feb)								
HINF		ZM500 (Nov)							
MEZF			L-4C 3D (Feb)						
SFTF			L-4C 3D (Apr)				T120 (Dec)		
RFYF			L-4C 3D (Aug)	End time (Sep)					
PAGF				L-4C 3D (May)				T120+ZM (Jul)	
SAVF					L-4C 3D (Dec)				T120+ZM (May)
ETNF						T120+ZM (Dec)			

Locality	Latitude (°)	Longitude (°)	Locality	Latitude (°)	Longitude (°)
Attigneville	48,39	5,83	Leuglay	47,83	4,78
Bayel	48,17	4,79	Liffol-le-Petit	48,29	5,54
Beausite	48,98	5,20	Loisy-sur-Marne	48,77	4,57
Bournois	47,49	6,50	Magny-Lambert	47,70	4,59
Brousseval-et-Magneux	48,50	5,00	Mailley-Chazelot	47,54	6,04
Chamarandes-Choignes	48,11	5,18	Maizières	48,59	6,05
Chamesson	47,78	4,54	Marey	48,11	5,90
Champignol-lez-Mondeville	48,13	4,66	Marsanne	47,44	5,08
Champlitte	47,62	5,50	Maxey s/Vaise	48,55	5,67
Chanceaux	47,52	4,70	Melin	47,73	5,82
Chassigny	47,71	5,40	Menil-la-Horgne	48,70	5,54
Cognières	47,50	6,27	Neuves-Maisons	48,60	6,07
Courchaton	47,51	6,55	Noidant-le-Rocheux	47,83	5,26
Dampierre	47,57	5,69	Pagny s/Meuse	48,67	5,73
Dampvalley-lès-Colombe	47,63	6,25	Puits-et-Nuisement	48,21	4,50
Darcey	47,55	4,61	Rouvres-La-Chétive	48,30	5,77
Dommarien/Prautoy	47,70	5,34	Sacquenay	47,58	5,30
Dompcevrin	48,94	5,49	Scey s/Saône	47,67	5,97
Donjeux	48,35	5,15	Selongey	47,61	5,17
Dugny s/Meuse	49,09	5,39	Semouse	47,99	6,40
Echenoz	47,53	6,13	Sorcy-Gare	48,73	5,69
Epagny	47,44	5,07	St Germain s/Meuse	48,65	5,71
Euville	48,77	5,65	Thol-lès-Millières	48,14	5,47
Faucogney	47,87	6,57	Tilly s/Meuse	49,01	5,44
Fouvent	47,66	5,68	Troussey	48,69	5,67
Germigny	48,55	6,00	Valbois	48,94	5,60
Gilley	47,70	5,64	Vandœuvre-sur-Barse	48,21	4,51
Gondrecourt	48,50	5,52	Vauconcourt-Nervezain	47,66	5,81
Gyé s/Seine	48,02	4,42	Vignory-et-Froncles	48,29	5,12
Harmonville	48,48	5,88	Villechevreux-et-Courbenans	47,54	6,53
Jaillon	48,76	5,99	Vilotte-sur-Ource	47,86	4,67
Jainvillotte	48,27	5,72	Viterne	48,58	6,00
Jeandelaincourt	48,83	6,25	Void-Vacon	48,67	5,63
Jussey	47,82	5,88	Voisey	47,88	5,78
Lamargelle	47,51	4,84	Xertigny	48,05	6,43

Table S3 : Quarries in the area of interest for which a blast has been recorded at least once between 1963 and 2023.

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18 **Table S4 : Velocity model used by the CEA location algorithm. H stands for layer thickness, Vp for P-wave velocity and Vs**
19 **for S-wave velocity respectively.**

Layer	H (km)	Vp (km.s ⁻¹)	Vs (km.s ⁻¹)
1	0.9	3.00	1.73
2	25	6.03	3.56
3	500	8.16	4.65

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23 **Table S5 : The distance correction terms used in the ML_{LDG} formula in order to take into account geometrical spreading**
 24 **and anelastic attenuation. Tabulated coefficients of the attenuation of S-waves with epicentral distance (Δ).**

Δ (km)	$Q_0(\Delta)$	Δ (km)	$Q_0(\Delta)$	Δ (km)	$Q_0(\Delta)$	Δ (km)	$Q_0(\Delta)$
95	1.60	445	2.50	795	3.13	1145	3.62
145	1.80	495	2.60	845	3.20	1195	3.70
195	2.00	545	2.70	895	3.28	1245	3.75
245	2.10	595	2.80	945	3.35	1295	3.80
295	2.20	645	2.90	995	3.40	1345	3.85
345	2.30	695	3.00	1045	3.48	1395	3.90
395	2.40	745	3.05	1095	3.55	1445	3.90

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