Supplementary S2

This appendix lists the exact, verbatim search strings used in each database together with the search date and limits applied. The searches were run on 10 September 2025. For Web of Science and Scopus, limits were embedded in the search strings using database-specific field tags, while in IEEE Xplore, limits were applied via facets on the results page. The initial numbers of hits returned by the databases are provided.

Table S1. Representative search strings.

Data-base	Exact As-Run Search String (Verbatim)	Initial hits (10 Sep 2025)	Notes
IEEE Xplore	("transmission congestion" OR "line overload" OR "power flow constraint") AND (transmission OR "power system")	117	Apply facets in UI: Publication Year 2010–2025; Language English; Content Type: Journals, Early Access
	("loop flow" OR "unscheduled flow" OR "transit flow") AND (interconnector OR "cross-border" OR transmission) AND (congestion OR bottleneck OR constraint)	5	
	(congestion OR "line overload" OR "network constraint") AND (wind OR solar OR renewable) AND (transmission OR "high-voltage")	263	
	("post-contingency" OR "contingency overload" OR "overload after outage") AND (transmission OR "power system") AND ("thermal limit" OR "line rating" OR congestion)	7	
	("N-1" OR "contingency analysis" OR "operational security") AND (transmission OR "power system" OR TSO)	623	
	("transmission congestion" OR "line overload") AND ("thermal rating" OR ampacity OR "line rating" OR "operating limits") AND (transmission OR "overhead line")	8	
	("locational marginal pricing" OR LMP OR "market coupling" OR FBMC) AND (congestion OR "transmission constraint")	79	
	("congestion cost" OR "redispatch cost" OR "countertrading" OR curtailment) AND (transmission OR market)	308	
	("transmission switching" OR "topology control") AND (congestion OR "power flow") AND (transmission OR "power system")	89	
	("FACTS" OR SVC OR STATCOM OR TCSC OR UPFC OR "phase shifting transformer" OR PST OR HVDC) AND (congestion OR "power flow control") AND transmission	227	
	("dynamic line rating" OR DLR) AND (transmission OR "overhead line") AND (congestion OR ampacity OR "thermal rating")	25	
	(BESS OR "battery energy storage" OR storage) AND (transmission) AND (congestion OR constraint)	1155	
	("locational marginal pricing" OR LMP OR "flow-based market coupling" OR FBMC OR "market coupling") AND (congestion OR "transmission congestion")	79	
	("demand response") AND (TSO OR "transmission system operator") AND (DSO OR "distribution system operator")	29	
	("demand response") AND ("measurement and verification" OR telemetry OR baseline OR prequalification OR metering) AND (TSO OR transmission OR "ancillary services")	102	
	("demand response" OR "demand-side response") AND (congestion OR "transmission constraint") AND (locational OR nodal OR zonal OR "constrained area" OR "non-wires alternative")	17	
	("demand response" OR "demand flexibility") AND ("locational marginal pricing" OR LMP OR nodal OR zonal)	50	
	("interruptible load" OR "industrial demand response" OR "industrial load shedding") AND (TSO OR transmission OR "ancillary services")	4	
	("TSO-DSO" OR "TSO/DSO") AND ("demand response" OR "flexibility services") AND (congestion OR "network constraint" OR transmission)	12	
	("demand response") AND ("smart grid" OR microgrid OR "distribution system") AND (review OR survey)	98	

	("demand response" OR "demand flexibility") AND (activation OR latency OR "response time" OR telemetry OR baseline OR aggregation) AND (TSO OR transmission OR "ancillary services")	103	
Scopus	(TITLE-ABS-KEY(("energy transition" AND "power system flexibility")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	23	Scopus filters embedded (year, language, doctype); Subject area filter: ENER OR ENGI OR COMP
	(TITLE-ABS-KEY(("transmission system" AND ("security of supply" OR "operational security"))) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	55	
	(TITLE-ABS-KEY(("transmission congestion" AND "power system")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	199	
	(TITLE-ABS-KEY(("demand side response" AND "transmission system operator")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	6	
	(TITLE-ABS-KEY(("transmission congestion" OR "line overload" OR "power flow constraint") AND (transmission OR "power system")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009 AND NOT TITLE-ABS-KEY(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	656	
	(TITLE-ABS-KEY(("loop flow*" OR "unscheduled flow*" OR "unintended flow*" OR "transit flow*") AND (transmission OR interconnector OR "cross-border") AND (congestion OR bottleneck OR constraint)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	22	
	(TITLE-ABS-KEY((congestion OR "line overload" OR "network constraint") AND (wind OR solar OR renewable* OR RES) AND (transmission OR "high-voltage")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	853	
	(TITLE-ABS-KEY(("post-contingency" OR "contingency overload" OR "overload after outage") AND (transmission OR "power system") AND (congestion OR "thermal limit*" OR "line rating")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	17	
	(TITLE-ABS-KEY(("N-1" OR "contingency criterion" OR "operational security" OR "security of supply" OR SOGL OR "system operation guideline") AND (transmission OR TSO OR "power system" OR "control area")) AND (DOCTYPE(ar) OR DOCTYPE(re))	1480	

AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	
(TITLE-ABS-KEY(("contingency analysis" OR "security assessment" OR "N-1 secure") AND (transmission OR "control area" OR TSO)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	468
(TITLE-ABS-KEY(("transmission congestion" OR "line overload") AND ("thermal rating" OR ampacity OR "line rating" OR "operating limit*" OR "operational limit*") AND (transmission OR "overhead line" OR "power system")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	21
(TITLE-ABS-KEY(("transmission congestion" OR "network constraint") AND ("congestion cost*" OR "redispatch cost*" OR "countertrading cost*" OR curtailment OR "renewable curtailment") AND (market OR "electricity market" OR TSO OR "cross-border")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	49
(TITLE-ABS-KEY(("transmission congestion" OR "network constraint") AND ("price separation" OR "zonal price" OR "price area" OR "market splitting" OR "congestion rent" OR "social welfare") AND ("day-ahead" OR "market coupling" OR "cross-border" OR FBMC OR "flow-based")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	14
(TITLE-ABS-KEY((redispatch* OR "re-dispatch*" OR countertrading OR "counter-trading") AND ("transmission congestion" OR "congestion management") AND (TSO OR "system operator" OR transmission)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009 AND NOT TITLE-ABS-KEY(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	66
(TITLE-ABS-KEY(("dynamic line rating" OR DLR) AND (transmission OR "overhead line") AND (congestion OR "transmission constraint" OR ampacity)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009 AND NOT TITLE-ABS-KEY(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	73
(TITLE-ABS-KEY((storage OR "battery energy storage" OR BESS) AND (congestion OR "transmission constraint") AND transmission) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009 AND NOT TITLE-ABS-KEY(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO	392

(SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	
(TITLE-ABS-KEY(("demand response" OR "demand-side response") AND ("congestion management" OR "congestion relief") AND (transmission OR TSO)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	53
(TITLE-ABS-KEY(("demand response" OR "demand side response" OR "demand-side response" OR "demand flexibility") AND (taxonomy OR classification OR mechanisms OR "price-based" OR "incentive-based" OR "direct load control" OR "interruptible load" OR "time-of-use" OR "critical peak pricing" OR "real-time pricing")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	3565
(TITLE-ABS-KEY(("demand response" OR "demand-side response") AND (TSO OR "transmission system operator") AND (DSO OR "distribution system operator")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	30
(TITLE-ABS-KEY(("demand response" OR "demand-side response") AND ("measurement and verification" OR baseline OR telemetry OR prequalification OR "minimum bid size" OR "ramp rate" OR "availability window" OR metering) AND (TSO OR transmission OR "ancillary services")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	175
(TITLE-ABS-KEY(("demand response" OR "demand flexibility") AND (locational OR nodal OR zonal) AND ("price signal" OR "locational marginal pricing" OR LMP OR "nodal pricing" OR "zonal pricing")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	63
(TITLE-ABS-KEY(("TSO-DSO" OR "TSO/DSO" OR "TSO DSO coordination") AND ("demand response" OR "flexibility services") AND (congestion OR "network constraint" OR "transmission constraint")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	16
(TITLE-ABS-KEY(("demand response" OR "demand side response") AND ("transmission congestion" OR "congestion relief" OR "transmission constraint" OR "network constraint") AND (locational OR "location-specific" OR zonal OR nodal OR "constrained area" OR "non-wires alternative")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	23
(TITLE-ABS-KEY(("demand response") AND ("smart grid" OR microgrid OR "distribution system" OR DSO) AND (review OR survey)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026)	348

	AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")		
	(TITLE-ABS-KEY(("transmission system operator" OR TSO OR "system operator") AND ("demand response" OR "demand-side response") AND (program OR scheme OR procurement OR tender OR pilot OR platform)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	382	
	(TITLE-ABS-KEY(("demand response" OR "demand flexibility") AND (locational OR "constrained area" OR zonal OR nodal) AND (TSO OR transmission) AND (activation OR latency OR "response time" OR "minimum bid" OR aggregation OR telemetry OR baseline)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	2	
	(TITLE-ABS-KEY(("demand response" OR "demand-side response") AND (economics OR cost* OR profitability OR incentive* OR "willingness to participate") AND (TSO OR transmission OR "ancillary services")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	1455	
	(TITLE-ABS-KEY(("demand response" OR "demand-side response") AND (regulation OR regulatory OR policy OR "market design" OR "market access") AND (TSO OR transmission OR "ancillary services")) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	532	
	(TITLE-ABS-KEY(("demand response" OR "demand-side response") AND (survey OR review OR "systematic review") AND (TSO OR transmission)) AND (DOCTYPE(ar) OR DOCTYPE(re)) AND PUBYEAR > 2009) AND (PUBYEAR > 2009 AND PUBYEAR < 2026) AND LIMIT-TO (LANGUAGE, "English") AND (LIMIT-TO (DOCTYPE, "ar") OR LIMIT-TO (DOCTYPE, "re"))) AND (LIMIT-TO (SUBJAREA, "ENER") OR LIMIT-TO (SUBJAREA, "ENGI") OR LIMIT-TO (SUBJAREA, "COMP")	216	
Web of Science	(TS=("energy transition" AND "power system flexibility") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	19	WoS Advanced Search with WC categories: ENGINEERING, ELECTRICAL & ELECTRONIC; ENERGY & FUELS; COMPUTER SCIENCE, INFORMATION SYSTEMS.
	(TS=("transmission system" AND ("security of supply" OR "operational security")) AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	38	
	(TS=("transmission congestion" AND "power system") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	121	
	(TS=(("demand response" OR "demand side response" OR "demand-side response") AND "transmission system operator") AND DT=(Article OR Review) AND PY=(2010-	34	

2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	
(TS=("transmission congestion" OR "line overload" OR "power flow constraint") AND TS=(transmission OR "power system") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	318
(TS=("loop flow*" OR "unscheduled flow*" OR "unintended flow*" OR "transit flow*") AND TS=(transmission OR interconnector OR "cross-border") AND TS=(congestion OR bottleneck OR constraint) AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	14
(TS=(congestion OR "line overload" OR "network constraint") AND TS=(wind OR solar OR renewable* OR RES) AND TS=(transmission OR "high-voltage") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	636
(TS=("post-contingency" OR "contingency overload" OR "overload after outage") AND TS=(transmission OR "power system") AND TS=(congestion OR "thermal limit*" OR "line rating") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	20
(TS=("N-1" OR "N−1" OR "N–1" OR "contingency criterion" OR "operational security" OR "security of supply" OR SOGL) AND TS=(transmission OR TSO OR "power system" OR "control area") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	3198
(TS=("transmission congestion" OR "line overload") AND TS=("thermal rating" OR ampacity OR "line rating" OR "operating limit*" OR "operational limit*") AND TS=(transmission OR "overhead line" OR "power system") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	11
(TS=("transmission congestion" OR "network constraint") AND TS=("congestion cost*" OR "redispatch cost*" OR "countertrading cost*" OR curtailment OR "renewable curtailment") AND TS=(market OR "electricity market" OR TSO OR "cross-border") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	29
(TS=("transmission congestion" OR "network constraint") AND TS=("price separation" OR "zonal price" OR "price area" OR "market splitting" OR "congestion rent" OR "social welfare") AND TS=("day-ahead" OR "market coupling" OR "cross-border" OR FBMC OR "flow-based") AND DT=(Article OR Review) AND PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	3
(TS=("topology control" OR "transmission switching") AND TS=(congestion OR "power flow") AND TS=(transmission OR "power system") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR	112

HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	
(TS=(FACTS OR SVC OR STATCOM OR TCSC OR UPFC OR "phase shifting transformer" OR PST OR HVDC) AND TS=(congestion OR "congestion management" OR "power flow control") AND TS=(transmission) AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	373
(TS=("market splitting" OR "market coupling" OR "flow-based market coupling" OR FBMC OR "locational marginal pricing" OR LMP) AND TS=("transmission congestion" OR "congestion management") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	82
(TS=("demand response" OR "demand side response" OR "demand-side response" OR "demand flexibility") AND TS=(taxonomy OR classification OR mechanisms OR "price-based" OR "incentive-based" OR "direct load control" OR "interruptible load" OR "time-of-use" OR "critical peak pricing" OR "real-time pricing") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	1918
(TS=("demand response" OR "demand-side response") AND TS=("measurement and verification" OR baseline OR telemetry OR "prequalification" OR "minimum bid size" OR "ramp rate" OR "availability window" OR metering) AND TS=(TSO OR transmission OR "ancillary services") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	68
(TS=("interruptible load" OR "industrial demand response" OR "industrial load shedding") AND TS=(TSO OR transmission OR "ancillary services") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	9
(TS=("demand response" OR "demand side response") AND TS=("transmission congestion" OR "congestion relief" OR "transmission constraint" OR "network constraint") AND TS=(locational OR "location-specific" OR zonal OR nodal OR "constrained area" OR "non-wires alternative") AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	6
(TS=("demand response") AND TS=("smart grid" OR microgrid OR "distribution system" OR DSO) AND TS=(review OR survey) AND DT=(Article OR Review) AND	412

PY=(2010-2025)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	
(TS=("demand response" OR "demand flexibility") AND TS=(locational OR "constrained area" OR zonal OR nodal) AND TS=(TSO OR transmission) AND TS=(activation OR latency OR "response time" OR "minimum bid" OR aggregation OR telemetry OR baseline) AND DT=(Article OR Review) AND PY=(2010-2025) NOT TS=(building OR buildings OR residential OR "smart home" OR HVAC OR "thermal comfort" OR microgrid)) AND PY=(2010-2025) AND LA=(English) AND DT=(Article OR Review) AND WC=("ENGINEERING, ELECTRICAL & ELECTRONIC" OR "ENERGY & FUELS" OR "COMPUTER SCIENCE, INFORMATION SYSTEMS")	3